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# VIRGINIA MEDICAL

The Monthly Publication of The Medical Society of Virginia

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Good M… …a Legislature.


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# LETTERS TO THE EDITOR

## Readers Recognize Father, Uncle, Grandfathers in 1911 Annual Meeting Portrait

MY SON, Dr. G. B. Updike, Jr., gave me his October issue of VIRGINIA MEDICAL so that I would see the panoramic view of the 1911 annual meeting of The Medical Society of Virginia held in Richmond. With this picture you list the 399 members who attended that meeting and ask anyone who can identify members to do so.[1]

My uncle, Dr. Elliott T. Brady of Abingdon, was President of the Society in 1910. I have a copy of his address as President at the time, titled "Man's Inhumanity to Man". I believe he is the doctor just to the left of Dr. Hugh McGuire, whose likeness is numbered 4. If anyone can confirm this identification, I would appreciate your advising me.

My mother was Dr. Brady's sister, Minnie Brady Updike. At the time this picture was taken I was 18 years old. I had spent the summer months of 1907, 1908 and 1909 at Dr. Brady's home in Abingdon while I was attending Cluster Springs Academy in Cluster Springs, Virginia. Dr. Brady's home was next to the hospital he headed. Years later, when the hospital was enlarged, I was invited to attend a dedication ceremony, along with Dr. Brady's daughter, Annie Brady, later Mrs. Leslie C. Keith. We were the closest living kin at that time, but I am sorry to say neither of us could attend.

Dr. Brady later lived in Roanoke, Virginia, and did x-ray work. I have written Douglas E. Brady, Jr., who has restored the old Brady Home near Glasgow, Virginia, and lives there with his wife, Mary. I told him to write you for a copy of the issue. For many years he has been in charge of grounds, buildings and construction at Washington and Lee.

I will be 88 years old on October 19th.

Best wishes on identifying the 399 doctors in the picture.

Glenn B. Updike, Sr.

129 Kenilworth Avenue
Danville VA 24541

1. Portrait of the 1911 annual meeting of The Medical Society of Virginia. Va Med 107:682–686, 1980

*Dr. Ella T. Robeson of Hampton sent identification of the late Dr. George Johnson Tompkins, who practiced in Lynchburg. The Editors asked her to write biographically of him, and here is her letter.*

IN REPLY to your request, I am happy to send you the following information.

George Johnson Tompkins, MD, was born at "Stono" in Lexington, Virginia, on March 27, 1873. He was a grandson of Micajah Pendleton, MD, of Buchanan, Virginia. His only brother, Edmund Pendleton Tompkins, MD, practiced general medicine in Roanoke and Lexington.

Following his graduation from Fishburne Miltary School, he entered the Medical College of Virginia, receiving his medical degree in 1894. He had considerable postgraduate work, most of it in the New York Eye and Ear Infirmary.

He went to Lynchburg in 1899, where he limited his practice to diseases of the eye, ear, nose and throat. He was a member of The Medical Society of Virginia, holding the office of vice president in 1926. He was also a member of the American Medical Association and the Virginia Society of Otolaryngology and Ophthalmology. He was president of the Lynchburg and Campbell County Medical Society before its reorganization into the Lynchburg Academy of Medicine. He was a member of the active staffs of Lynchburg General, Marshall Lodge Memorial, and Virginia Baptist Hospitals until his death in 1941.

Dr. George J. Tompkins was my father.

**Ella T. Robeson, MD**

13 Adriatic Avenue
Hampton VA 23664

12. Dr. Elliott T. Brady

13. Dr. George Johnson Tompkins

WITH OLD photographs and VIRGINIA MEDICAL pages in hand, Dr. and Mrs. Ray A. Moore, Jr., of Farmville, sought out the Editors at the annual meeting in Williamsburg and provided identification of two physicians in the 1911 portrait.

Dr. Moore's father, the late Dr. Ray A. Moore, Sr., is the figure numbered 3, Dr. and Mrs. Moore believe. This figure had been tentatively identified as Dr. Harry William Porter of Louisa, but photographs from the Moore family archives seem clearly to support the identification of Dr. Ray A. Moore, Sr., and it shall so be entered in the record.

The senior Dr. Moore was a 1906 graduate of the University College of Medicine in Richmond. He practiced first in White Sulphur Springs, West Virginia; then in Phoenix, Charlotte County, Virginia; then went to Hampden-Sydney College in Farmville as college physician. He died in 1971 at the age of 93. Two other sons also practice medicine: Dr. Robert P. Moore, Richmond, and Dr. John A. Moore, Greensboro, North Carolina.

The second identification brought by Dr. and Mrs. Moore was that of Dr. Peter Winston of Farmville. He was recognized in VIRGINIA MEDICAL's pages by his granddaughter, Mrs. Thomas Gilmer, whose hus-

3. Dr. Ray A. Moore, Sr.

14. Dr. Peter Winston

**10. Dr. Benjamin W. Rawles 11. Dr. C. V. Carrington**

**15. Dr. Mark W. Peyser**

**16. Dr. Gerald A. Ezekiel**

band is the retired president of Hampden-Sydney College.

IT IS a pleasure to be able to confirm your identification of Dr. Benjamin Rawles in the picture of members attending the 1911 meeting of The Medical Society of Virginia.

Dr. Rawles was my grandfather. He was a delightful person. I learned to drive by driving him around on weekends while he made house calls. At the time I believe he was well into his 80s. His compensation from patients often was in the form of a dozen eggs taken directly from the hen house or a loaf of homemade bread. My recollection is that he was absolutely loved by his patients, although at times I wondered why. During his latter years my mother did his billing for him. I recall one bill went out addressed to a lady identified only as "Stick in the Mud".

Allen C. Goolsby, III
Hunton & Williams
PO Box 1535, Richmond VA 23212

**Editors' Note:** Mr. Goolsby is The Medical Society of Virginia's legal counsel.

A RELATIVE has passed on to me the 1911 photograph published in your October issue, thinking I could identify some of the doctors.

I am sure of two of them: Dr. Mark W. Peyser, my first cousin, and Dr. Gerald A. Ezekiel, whose father was my first cousin.

My father was Dr. Henry H. Levy, whose name is in the list published with the picture, but I cannot find him in the photograph.

Clare L. (Mrs. Maurice L.) Hutzler
1411 Wentbridge Road
Richmond VA 23227

THE EDITORS regret that in applying the circled numbers on the identified physicians in the 1911 portrait, the artist inadvertently placed the number 11 designating Dr. Charles Venable Carrington on the wrong figure. Dr. Carrington is correctly designated in the segment of the portrait reproduced with these paragraphs.

## Of Helmets, Oxen, and Freedom of Choice

In his editorial entitled "Whose Ox?", which appeared in the October 1980 issue of VIRGINIA MEDICAL[1], Dr. Henry S. Campell personally acknowledges restriction of his vision and hearing while wearing a motorcycle helmet.

Perhaps he was wearing his helmet when he espoused personal liberty and freedom of choice with the statement, "Freedom to choose a physician at large, rather than from a closed panel, is, we think, a basic right of the American patient."

As a matter of simple logic, if not philosophy,

should not his statement have been: "Freedom to choose a physician at large *as well as one* from a closed panel, is, we think, a basic right of the American patient"?

Whose ox, indeed!

**R. W. Jessee, MD**
Department of Preventive Medicine
Medical College of Virginia
Richmond VA 23298

1. Campell HS: Whose oxen? VA Med 107:707-708, 1980

**Dr. Campell replies:** I appreciate Dr. Jessee's reading my article and his thoughtful comments.

Philosophically I am opposed to limiting a patient's choice of physicians in any manner whatsoever by any means whatsoever. Voluntarily entering into a closed health panel involves financial coercion if the patient has second thoughts later. However, I was thinking primarily of the British health care system, wherein the primary physician must be the clearing house to other physicians.

I believe that my thoughts would have been best expressed by my saying: "Freedom to choose a physician without restriction of any type is, we think, a basic right of the American patient."

If a patient wishes to join an HMO or some other type of closed panel and if that patient will not be financially penalized upon wishing to go elsewhere for whatever reason, I have no objection. On the other hand, I object to a non-prepaid group which only refers within itself for less than noble reasons.

## Lots of HMO-Watchers in Virginia

I am sure everyone who took the time to even glance at the article on HMOs in the November issue[1] found it worthwhile and informative. It was a broad subject and difficult to cover.

I suppose HMOs will be part of the wave of new cost containment in medicine in the near future, and we doctors must prepare ourselves for such changes.

**Thomas Lee Pope, Jr., MD**
Department of Radiology
University of Virginia School of Medicine
Charlottesville VA 22908

1. Gray A: Virginia Medical's guide to HMO-watching. Va Med 107:764–771, 1980

I read with great interest the article entitled "Guide to HMO-Watching" in the November issue.[1]

As indicated at the end of the article, I would be glad if you would send me copies of all three articles recommended as additional reading. I thank you in anticipation.

**John H. Danby, MD**
PO Box 3176
Lynchburg VA 24503

**Editors' Note:** Many doctors have written to express their interest in the article on HMOs and to ask for the offered reading material. A number of letters have come from out-of-state, one from the physician-in-chief of a large, well-known HMO. The Editors are delighted our readers found the information of value but regret to report they have found a fly in the ointment: Dr. Charles Robert Meloni, not Dr. John Robert Maloney, should have been named as a representative of the Alexandria Medical Society to the committee investigating the feasibility of an individual practice association in Northern Virginia.

## Likes Committee Photographs

The October issue of VIRGINIA MEDICAL was one of the best I have ever seen, from a layman's standpoint. I particularly liked the idea of having photos of the various committee members.

Charles F. Suter
President, Suter Associates
2425 Wilson Boulevard
Arlington VA 22201

VIRGINIA MEDICAL

Editor
**W. Taliaferro Thompson, Jr., MD**

Managing Editor
**Ann Gray**

Business Manager
**Robert I. Howard**

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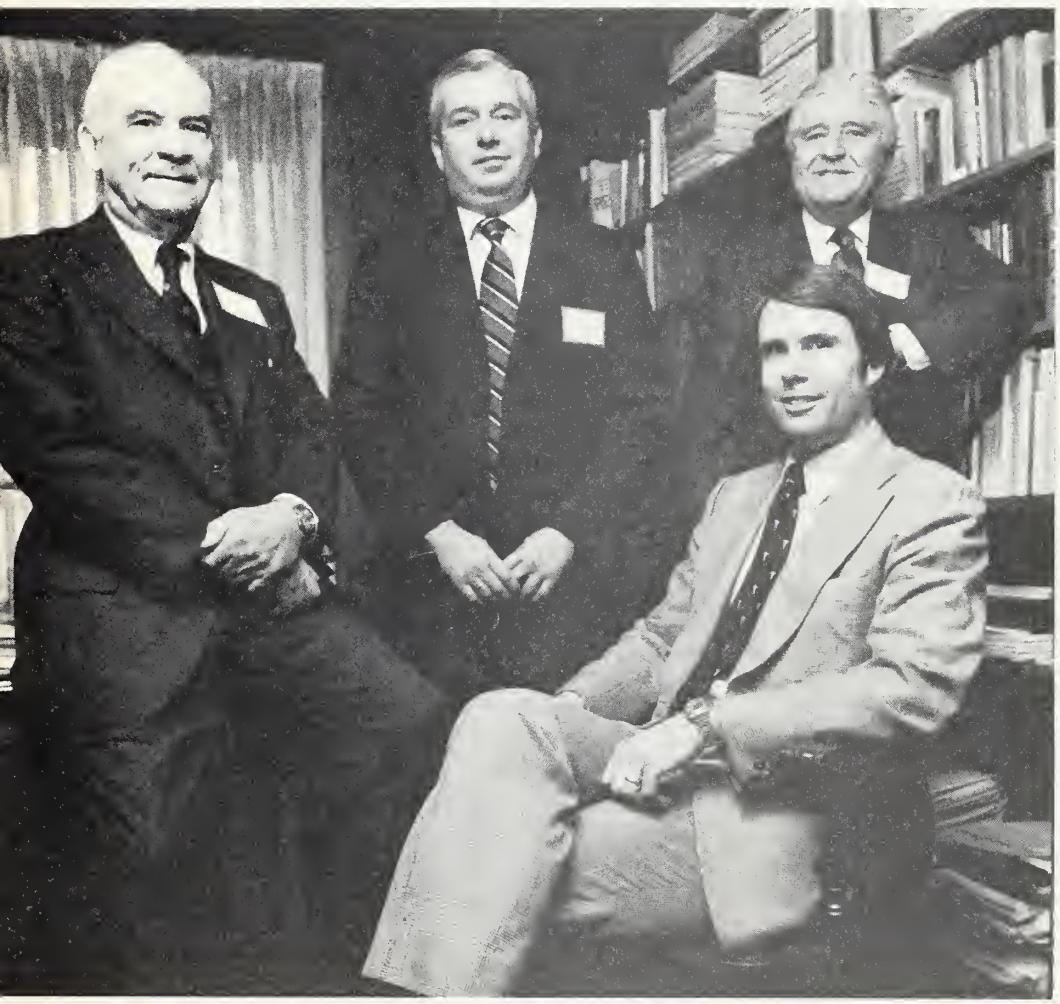
# WHO'S WHO

▼ At rear, left to right:
Delmar F. Weaver, MD, president, Culpeper County Medical Society;
James B. Hess, MD, secretary, Williamsburg-James City County Society;
Custis L. Coleman, MD, president, Richmond Academy of Medicine.
Seated, Colin W. Hamilton, MD, Virginia Beach Medical Society.



▼ Standing, left to right:
James E. Layton, MD, secretary
A. D. Crosett, Jr., MD, presiden
Seated,
Carol S. Shapiro, MD, president

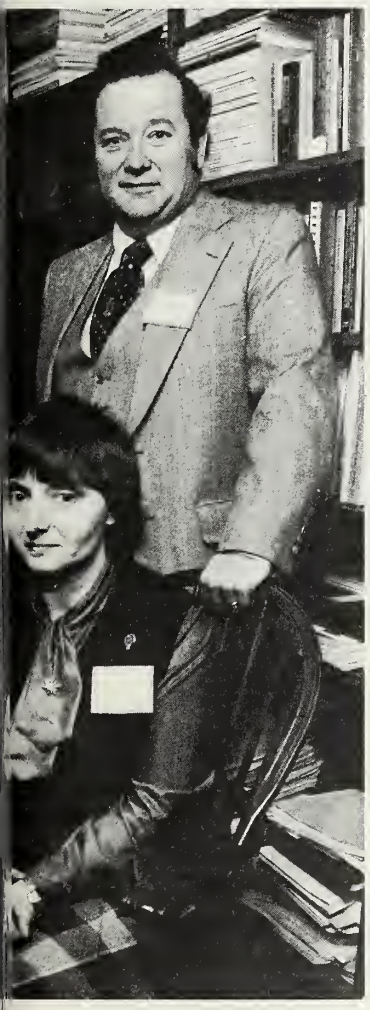
EMISSARIES of Virginia's local medical societies and their spouses came to Medical Society of Virginia headquarters recently for a symposium planned for them by President Percy Wootton. Speakers were members of the MSV staff; they described how their activities can be useful to these component organizations. Hit of the show was the Society's legal counsel, who talked off the record about trends in malpractice insurance and the new threat of antitrust litigation. Afterwards, all hands adjourned to happier top a tasty repast at Dr. and Mrs. ton's home.

Eleven doctors arrived early meeting and were persuaded for these pictures; then the ph

edical Society;
Medical Association.

ounty Medical Society.

▼ Standing, left to right:
Eugene C. Corbett, Jr., MD, president, James River Medical Society;
Lawrence V. Marshall, MD, president, Floyd County Medical Society;
Carl V. Yutzy, MD, president, Mid-Tidewater Medical Society.
Seated, Robert M. Kesler, MD, president, Norfolk Academy of Medicine.



lecamped, so we cannot offer its of these who appeared fter: Dr. Ira D. Godwin, presi- Fairfax County Medical So- Dr. Henry D. Patterson, secre- Chesapeake Medical Society; Dr. Norris A. Royston, Jr., president, Fauquier County Medical Society; Dr. Abelardo A. Ruiz, president, Portsmouth Academy of Medicine; and Dr. John A. Wente, Jr., president, Bedford County Medical Society.

In an early issue, VIRGINIA MEDICAL will publish an article incorporating the antitrust advice offered by legal counsel at this meeting. And the April issue will carry the annual roster of officers of Virginia's component medical societies.

# Advice to Authors

**VIRGINIA MEDICAL heartily welcomes previously unpublished articles, essays, and letters on subjects of interest to Virginia physicians. The text may deal with clinical medicine, history, or issues in the social, economic or political spheres. Final decisions on the acceptability of the articles are made by the Editor.**

## Copyright

**To meet requirements of the new copyright law, letters of transmittal accompanying submitted articles should contain the following language: "In consideration of the expenses of editing and publishing, and the benefits relating to publication of my article or other written work, I transfer to The Medical Society of Virginia all right, title and interest to my written work, if published." Manuscripts that are not accepted will be returned to the authors.**

## Manuscript Preparation

**Address your manuscript to the Editors, VIRGINIA MEDICAL, 4205 Dover Road, Richmond VA 23221.**

**A letter of transmittal should give the address and telephone number of the person who will communicate about the manuscript.**

**Manuscripts should be double-spaced throughout (including references) and typed on only one side of the paper, using margins of at least 4 cm at the top, bottom, and left side and at least 3 cm on the right side. One copy in addition to the original should be submitted. It is helpful to provide, on a separate sheet, an abstract or summary of your work.**

**All manuscripts are subject to editorial changes.**

**Illustrations should be black and white glossy prints, with legends typed in double space on a separate sheet of paper. An author wishing 4-color may negotiate to pay for the 4-color costs.**

**Acronyms and other abbreviations should be kept to a minimum and must be explained where used.**

**References should be listed in the order of their citation in the text. They should follow VIRGINIA MEDICAL's typographic style for references as it appears in each issue.**

**Refer to pharmaceutical products generically. Brand names may follow in parentheses.**

**All units of measure should appear in the metric system.**

**You are responsible for the accuracy of your statements and references.**

**There are many excellent handbooks of effective writing, among them *The Elements of Style,* by William Strunk, Jr., and E. B. White (MacMillan); *The Careful Writer: A Modern Guide to English Usage,* by Theodore M. Bernstein (Atheneum); and *How to Write and Publish a Scientific Paper,* by Robert A. Day (ISI Press).**

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URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and P. mirabilis infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
**Contraindications** Contraindicated in individuals with history of an allergic reaction to penicillins.
**Warnings Cyclacillin should only be prescribed for the indications listed herein.**
**Cyclacillin has less *in vitro* activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.**
**Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.**
**Precautions** Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
**Adverse Reactions** Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
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| Skin & Skin Structures | 250 mg to 500 mg q.i.d.† | 50 to 100 mg/kg/day† |
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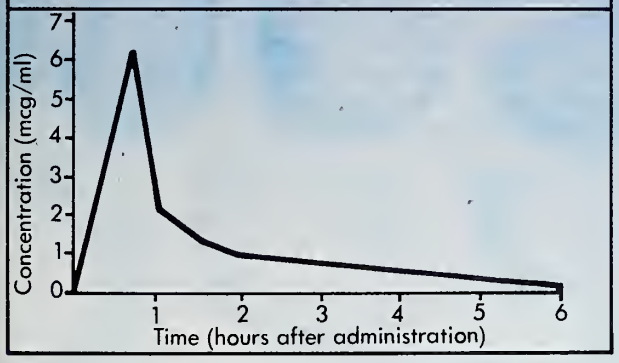


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NEW NAME

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**Tennis Medicine Symposium** (Georgetown University), coordinated with finals of Volvo Grand Prix, *New York City.* Robert P. Nirschl, MD, Georgetown University Medical Center, 3800 Reservoir Road, Washington DC 20007.

**January 22-23-24**
**Annual Meeting of the Neurosurgical Society of the Virginias** *Hot Springs, Virginia.* Albert S. Loew, Jr., 3500 Queen Street, Portsmouth VA 23707.

**January 24-26**
**American Medical Association's Winter Scientific Meeting,** Hilton Hotel, *Atlanta.* AMA Dept. of Meeting Services, 535 N. Dearborn St., Chicago IL 60610.

**January 26-29**
**Pulmonary Disease 1981: Current Concepts for the Clinician** (Boston University), Village at Smuggler's Notch, *Jeffersonville, Vermont.* 19 hrs. Cat. 1. Fee: $240. Arthur S. Robins, MD, Pulmonary Section, Boston VA Medical Center, Boston MA 02130, (617-232-9500, Ext. 3348.

**January 30**
**Movement Disorders** (University of Maryland), *Baltimore.* Betty B. Saar, 10 South Pine Street, Baltimore MD 21201, (301) 528-3956.

**January 31-February 7**
**Infectious Diseases in Clinical Practice** (University of California at San Francisco), *Park City, Utah.* 20 hrs. Cat.1. Fee: $250. John Mills, MD, University of California, 1308 Third Ave., San Francisco CA 94143, (415) 666-2483.

**February 5-7**
**Fiberoptic Bronchoscopy: A Workshop** (University of Kentucky), *Lexington, Kentucky.* Frank R. Lemon, MD, University of Kentucky College of Medicine, Lexington KY 40536, (606) 233-5161.

**February 13-15**
**Workshop on Sexuality and Intimacy** (University of Maryland), University of Maryland Campus, *Baltimore.* Betty B. Saar, 10 South Pine Street, Baltimore MD 21201, (301) 528-3956.

**February 15-20**
**12th Family Medicine Review: Session I** (University of Kentucky), *Lexington, Kentucky.* See preceding entry.

**February 20-22**
**Regional Meeting, Virginia Chapter, American College of Physicians,** in conjunction with the Virginia Society of Internal Medicine, the Homestead, *Hot Springs.* James M. Moss, MD, 1707 Osage Street, Alexandria VA 22302, (703) 683-3511.

**February 22-25**
**Southeast Surgical Congress Conference,** *New Orleans.* A. H. Lehon, MD, 315 Boulevard, NE, Suite 500, Atlanta GA 30312.

**February 27**
**School Health III** (Departments of Pediatrics and CME, East Tennessee State University), *Johnson City, Tennessee.* 7 hrs. Cat. 1. Fee: $40. Shirley Bogart, (615) 928-6426, Ext. 204.

**February 27-March 1**
**Annual Meeting, Virginia Chapter, American Academy of Pediatrics, and the Virginia Pediatric Society,** Conference Center, *Williamsburg.* Joseph R. Zanga, MD, Box 514, MCV Station, Richmond VA 23298, (804) 786-0769.

**February 28-March 6**
**Annual Postgraduate Course in Internal Medicine** (University of Miami), Sheraton Bal Harbor Hotel, *Miami Beach.* Dr. Jose S. Bocles, Dept. of Medicine, R-760, University of Miami, PO Box 016760, Miami FL 33101.

**March 1-5**
**17th Annual Radiology Postgraduate Course: Chest Radiology** (Medical College of Virginia), Williamsburg Conference Center, *Williamsburg.* 20 AMA Cat. 1 credits. Fee: $300 for physicians, $150 for residents. MCV Dept. of Continuing Medical Education, (804) 786-0496.

**March 2-6**
**70th Annual Meeting of the United States-Canadian Division, International Academy of Pathology,** Palmer House, *Chicago.* Dr. Nathan Kaufman, (404) 724-2973.

**March 14**
**Immunology-Allergy Review** (East Tennessee State University) *Johnson City, Tennessee.* Fee: $60. Shirley Bogart, (615) 928-6426, Ext. 204.

**March 16-20**
**Basic Practicum in Abdominal and Obstetrical Ultrasound for the Novice Ultrasonographer** (Johns Hopkins Medical Institutions), *Baltimore.* Fee: $400. Joan Batt, Dept. of Radiology, Johns Hopkins Hospital, Baltimore MD 21205, (301) 955-8450.

**March 19-20**
**32nd Annual Postgraduate Day of the Roanoke Memorial Hospitals** (University of Virginia), *Roanoke.* William H. McAfee, EdD, Roanoke Memorial Hospital, Roanoke VA 24033.

**March 21-28**
**Ultrasound at Vail: 2nd Annual Seminar,** the Lodge, *Vail, Colorado.* Michael L. Johnson, MD, Box 6093, Denver CO 80206.

**March 27**
**Psychopathology of Aging: An Update** (University of Maryland), *Baltimore.* See entry for February 13-15.

**March 28**
**1st Annual Seminar of Cancer Researchers in Virginia** (American Cancer Society, Virginia Division; Tidewater Regional Cancer Network; Eastern Virginia Medical School), *Norfolk.* James J. Starling, PhD, EVMS, 700 Olney Road, Norfolk VA 23501, (804) 446-5656.

**March 30-31**
**Medical Aspects of Sports Symposium: A Good Sports Medicine Program for Our Schools** (University of Kentucky), Hyatt Regency Hotel, *Lexington, Kentucky.* Frank R. Lemon, MD, University of Kentucky, Lexington KY 40536, (606) 233-5161.

**March 30-April 1**
**Internal Medicine: Update and Review** (University of Maryland) Hilton Convention Center, *Baltimore.* See entry for February 13-15.

**April 22**
**12th Annual Symposium on Medicine and Religion: "Religious Ideation in Psychiatric Diagnosis"** (Portsmouth Naval Hospital and The Medical Society of Virginia), Naval Regional Medical Center, *Portsmouth.* Mrs. Peggy Buchanan, (804) 398-5550.

**April 24-26**
**"Pediatric Springfest": Annual Postgraduate Conference and Sutton Day Lectures** (Department of Pediatrics, Medical College of Virginia), Williamsburg Hilton Conference Center, *Williamsburg.* Dawn G. Mueller, MD, Box 276, MCV Station, Richmond VA 23298.

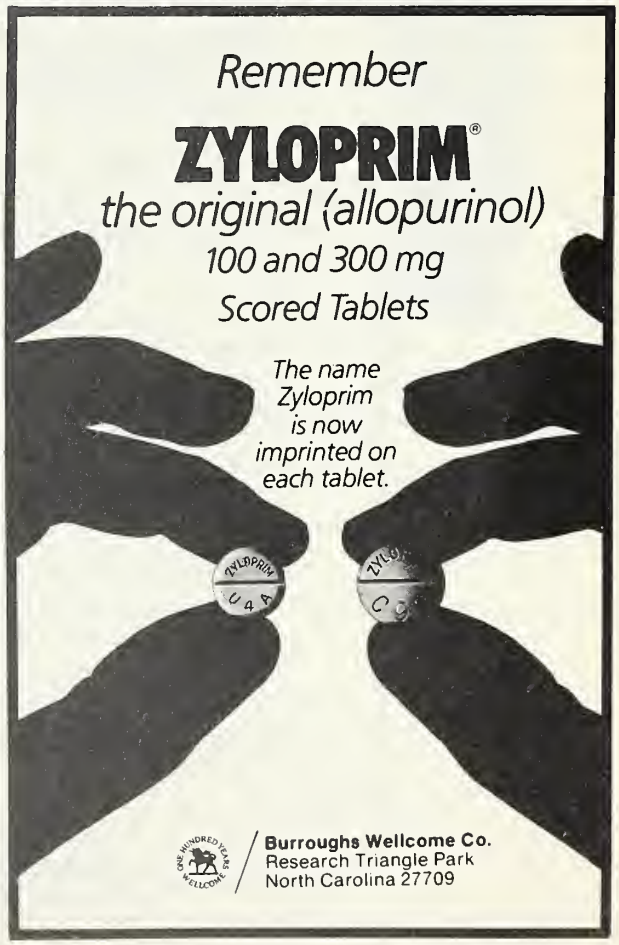
## CALLING ALL DOCTORS H THROUGH N!

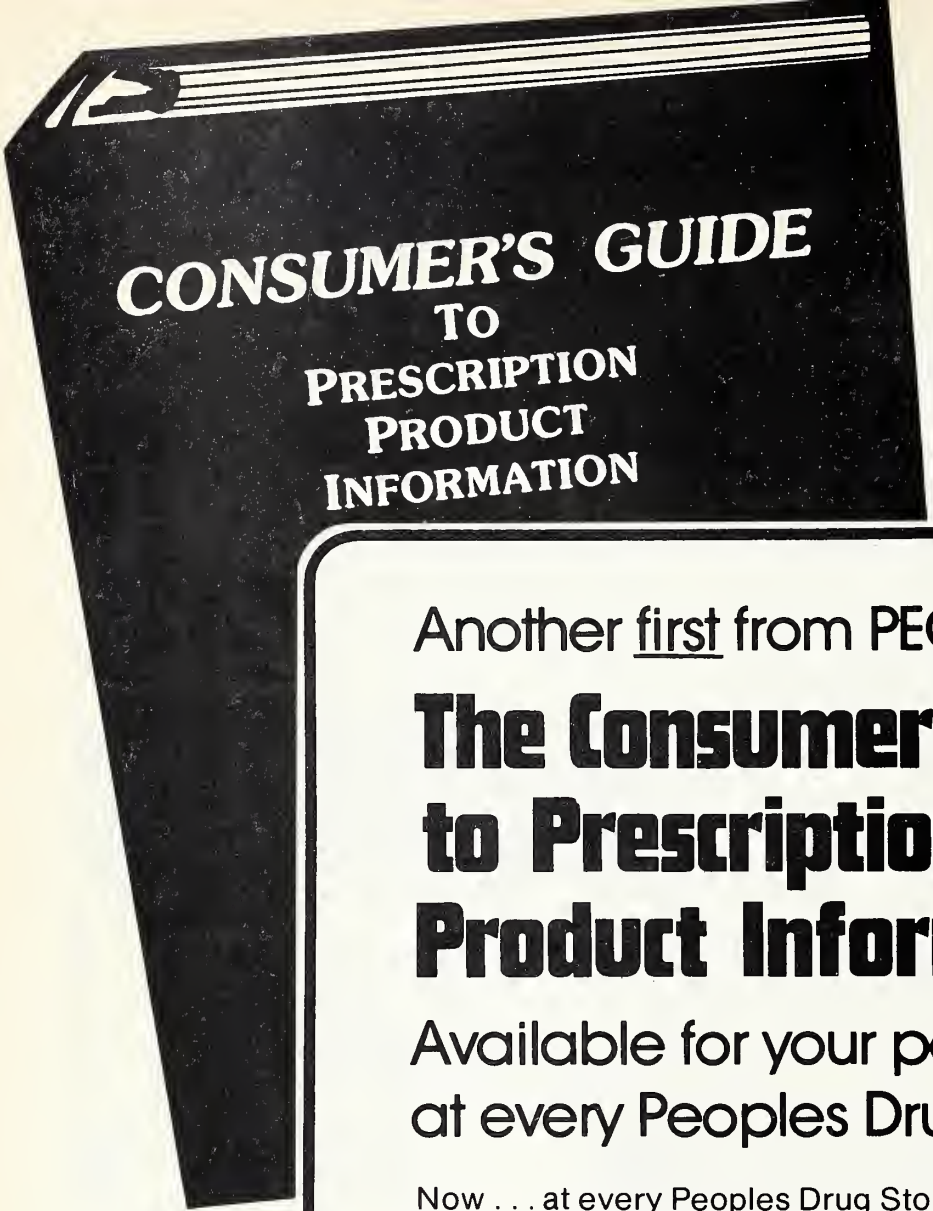
With the New Year, the continuing education requirement now mandatory for MSV membership moved into its second cycle, rendering liable for reports by March 1, 1981, all members whose surnames begin with the letters H through N.

The report should cover the calendar years 1979 and 1980 and should show that during those two years you earned 60 hours of credits (30 hours each year). The 60 hours may be entirely Category I credits, or they may be 20 hours of Category I and 40 hours of other categories.

To report, prepare a signed statement that you have earned the specified credits. It's an honor system, and you need not attach documentary evidence—but save the evidence in your files, in case. Mail the statement to Dr. Kinloch Nelson, Coordinator of Continuing Education, 4205 Dover Road, Richmond VA 23221.

**1981 Annual Meeting,**
**The Medical Society of Virginia:**
**October 21-25, Norfolk**



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The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

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**Paul C. Wilkins, MD,** Psychiatry, 1395 Hydraulic Rd., Charlottesville VA 22901

*Arlington County Medical Society*
**Edward L. Anderson, MD,** Internal Medicine, 5550 Columbia Pike, Arlington VA 22204

*Chesapeake Medical Society*
**James M. Laster, MD,** Psychiatry, 628 W. Lynn Shores Circle, Virginia Beach VA 23452

*Fairfax County Medical Society*
**Neeraj Bhushan, MD,** Internal Medicine, 6130 Wicklow Drive, Burke VA 22015
**Mary Jane Major, MD,** Internal Medicine, 6060 Arlington Blvd, Falls Church VA 22044
**Alfred C. Myaing, MD,** Cardiology, 4810 Beauregard Street, Alexandria VA 22312
**Howard Ira Pressman, MD,** Psychiatry, 3704 Emily Street, Kensington MD 20795

*Lynchburg Academy of Medicine*
**S. Michael Erba, MD,** Internal Medicine/Cardiology, 219 Wildwood Road, Lynchburg VA 24502

*Newport News Medical Society*
**A. J. Ellington, Jr., MD,** Obstetrics/Gynecology, 606 Denbigh Blvd., Newport News VA 23602
**Robert C. Shwayder, MD,** Obstetrics/Gynecology, 606 Denbigh Blvd. Newport News VA 23602
**Thomas P. Splan, MD,** Pulmonary Diseases/Internal Medicine, 606 Denbigh Blvd, Newport News VA 23602

*Norfolk Academy of Medicine*
**Gary B. Snider, MD,** Family Practice, 5205 Colley Ave., Norfolk VA 23508
**David M. West, MD,** Anesthesiology, 404 Medical Tower, Norfolk VA 23507

*Northern Neck Medical Society*
**George Moore, MD,** Preventive Medicine, Box 890 Little Bay, White Stone VA 22578

*Prince William County Medical Society*
**Geraldine K. Richter, MD,** Orthopedic Surgery, 9580 Surveyor Court, Manassas VA 22110

***More new members on page 24.***

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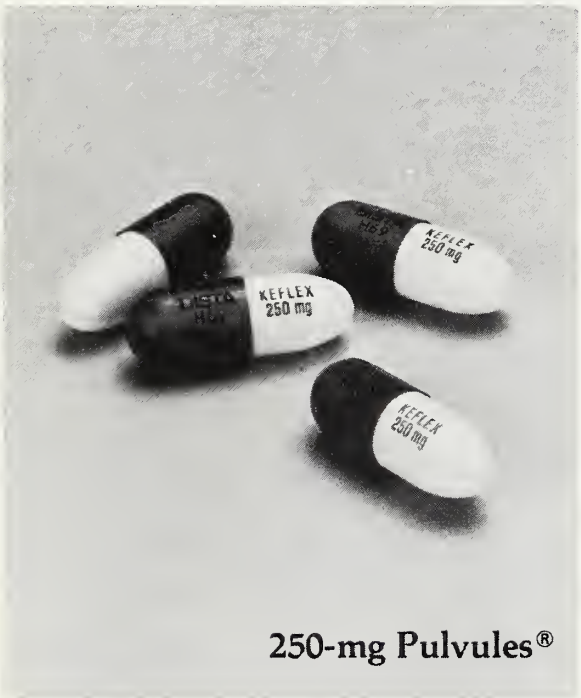


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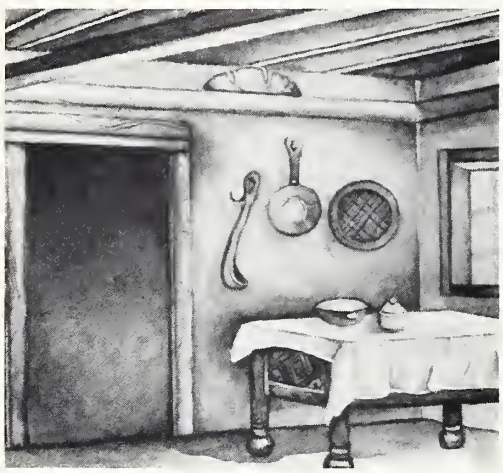
# Yesterday's Folk Remedy:

## A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]

# Today's Tradition: Tegopen®
# (cloxacillin sodium)

## for the treatment* of known or suspected staphylococcal infections such as:

- Acute sinusitis
- Furunculosis and carbuncles
- Impetigo
- Secondarily infected dermatitis
- Cellulitis
- Abscesses
- Infected sebaceous cysts

## In serious, deep-seated staph infections, 500 mg q.i.d. dosage is recommended.†

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.[2]
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin.‡[2]
- 88% of *S aureus* has been reported resistant to penicillins G and V.‡[2]
- Staph resistance to erythromycin may develop during a course of therapy.[3]

**Available as 500-mg and 250-mg capsules and Oral Solution 125 mg/5 ml.**

# Tegopen® (cloxacillin sodium)
# Today's Penicillin for Today's Physician


1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.


**See brief summary of prescribing information on an adjoining page.**

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

‡Not all isolates may have been tested using both discs.

# Tegopen®
## (cloxacillin sodium)
Capsules and Oral Solution

**Brief Summary of Prescribing Information**

For complete information, consult Official Package Circular.
(12) 9/11/75

**INDICATIONS:**

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

**IMPORTANT NOTE**

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

**CONTRAINDICATIONS:**

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

**WARNING:**

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

**PRECAUTIONS:**

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

**ADVERSE REACTIONS:**

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

**USUAL DOSAGE:**

Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

*N.B.* INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

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**Martin T. Evans, MD,** General & Vascular Surgery, 7702 Parham Road, Richmond VA 23229

**Clifford B. Fleet, Jr., MD,** Obstetrics/Gynecology, 5855 Bremo Road, Richmond VA 23226

**William E. Kelley, Jr., MD,** Surgery/Surgical Oncology, 8919 Three Chopt Road, Richmond VA 23229

**Gerald M. Polin, MD,** Psychiatry, 9805 Drovin Drive, Richmond VA 23233

**Edward J. Ramsey, Jr., MD,** Gastroenterology, 900 North Hamilton Street, Richmond VA 23221

**Aristides Sismanis, MD,** Otolaryngology, 3112 Quail Hill Drive, Midlothian VA 23113

**Stuart M. Solan, MD,** Family Practice, 1117 Westbriar Drive, Richmond VA 23233

**Lauraine Mae Stewart, MD,** Pediatrics/Anesthesia, Medical College of Virginia, Richmond VA 23298

**Muhammad S. Zia, MD,** Psychiatry, 2nd & Franklin, Richmond VA 23219

*Roanoke Academy of Medicine*

**John G. Burch, MD,** Neurology, 2601 Franklin Road, Roanoke VA 24014

**Gary E. Glontz, MD,** Internal Medicine, 1603 Franklin Road, Roanoke VA 24016

**George W. Luedke, MD,** Psychiatry, 3166-121 Berry Lane, Roanoke, VA 24018

**Faith R. Pasley, MD,** Family Practice, 2105 Crystal Spring Ave., Roanoke VA 24014

**William W. Pasley, MD,** Obstetrics/Gynecology, 2105 Crystal Spring Ave., Roanoke VA 24014

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**Sundararamireddy S. Pasem, MD,** Psychiatry, Box 4030, Petersburg VA 23803

*Southwestern Virginia Medical Society*

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VIRGINIA
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JANUARY 1981

# Serving a Locum Tenens in Virginia's Statehouse

In the past 30 years, nine Virginia physicians have been elected to the Virginia's General Assembly. Six of them are still living and consented to being interviewed for VIRGINIA MEDICAL.

**In a photograph made in 1962, William A. Pennington, MD (left), four times elected by Buckingham County voters to Virginia's House of Delegates, huddles with the late "Sales Tax Sam" Pope, Southampton delegate who led the fight for a state sales tax.**

By Carl L. Shires

THE nine Virginia physicians who have been elected to the Virginia General Assembly during the past three decades have much in common besides the long-ago grind with Gray's *Anatomy*, the sleeplessness of internship, and the Hippocratic Oath.

All nine were Democrats; all but two were graduated from the Medical College of Virginia; seven have been of rural persuasion; and each of the surviving six look fondly at their stints as Virginia lawmakers. Most of them agree that practicing medicine and practicing lawmaking puts a dent in the medical practice purse. Most, too, have been members of The Medical Society of Virginia. One of them, the late Dr. James D. Hagood, was the Society's President in 1957.

And each of the surviving six think there is a significant role for a medical man in the Virginia House or Senate. In a body virtually overrun with lawyers, the physicians lend an expertise—however few their relative numbers—to the legislative process.

Why have all nine been Democrats? There is no diagnostic consensus among the doctors for that phenomenon. Some pointed out, however, that there is a difference between ordinary Democrats and Byrd Democrats and that there have been several Byrd men among the medical men.

Dr. Hagood, for example, was the most stalwart of all the stalwart conservatives when he was a senator. And then there was Dr. William A. Pennington, who served four two-year terms in the House of Delegates beginning in 1960. Dr. Pennington got out of the House and one year later ran for Governor as the flag-bearer of the American Independent Party, a party considerably removed from the likes of George McGovern.

**THE NINE**

**John C. Buchanan, MD, Wise County, now in the Senate**
**The late Walter Caudill, MD, Giles County**
**Virgil Cox, MD, Grayson County**
**Walter C. Elliott, MD, Russell County**
**Edward E. Haddock, MD, Richmond**
**The late James D. Hagood, MD, Halifax County**
**William A. Pennington, MD, Buckingham County**
**William Ferguson Reid, MD, Richmond**
**The late Jack W. Witten, MD, Tazewell County**

In engaging in post-legislative politics, Dr. Pennington ran against the grain of most of his fellow physicians who had served in the legislature. Dr. Edward E. Haddock of Richmond did make an unsuccessful run for Congress after he left the Senate, but most of the doctors have been almost inert politically since their days at the state Capitol.

But while there, they left their marks. In a 140-member legislature that veteran legislative watchers think has seen some 600 different persons serve during the 30-year span, some of the real old-timers at the Capitol remember all nine.

For who can forget Dr. Jack W. Witten, a bachelor who took nearly 200 underprivileged boys into his mountain home and reared them in strict and Christian fashion? Or Dr. Hagood, in the thick of things at the Statehouse for 30 years? Or Dr. William Ferguson Reid, who when he took his seat in the House in 1968 was the first black in the General Assembly since Reconstruction? And in the Assembly now is Dr. John C. Buchanan, who was the subject of an article in VIRGINIA MEDICAL less than a year ago[1] and who is considered among his legislative peers as one of the most intelligent of all the current lawmakers.

"Fine men, all, though some finer than others," mused State Senator Edward E. Willey (also profiled in a recent issue of VIRGINIA MEDICAL[2]), who has known each of the nine in his 28 years in the Senate.

This reporter interviewed each of the six surviving physician-legislators, asking three basic questions of each. Here are the questions and the responses.

**How do you assess the physician's role in the legislature?**

DR. BUCHANAN, member of the Senate since 1972: "I don't know that a doctor has any specific role, but he might be able to provide information that otherwise could be gotten from an expert witness . . . A doctor at the legislature rounds out a wide range of expertise among the members, and my non-medical colleagues tend to ask my advice on medical legislation."

DR. VIRGIL COX, 76, member of the House from 1962 through a special session in 1965: "Actually, my role as a physician was relatively minor. I was down there to represent the people of my own county, and I was more interested in seeing that Mt. Rogers was turned into a state park than I was in medical subjects."

DR. WALTER C. ELLIOTT, 77, whose service in the House paralleled that of Dr. Cox: "Certainly we bring an understanding to bills that affect the medical profession, the public in need of medical care, and the State Health Department . . . I remember that at one time the Agriculture Department was fixing to take over the testing of milk and I fought pretty hard—and successfully—to keep that where it be-

▲John C. Buchanan, MD, whom Wise County voters have been sending to Virginia's Senate since 1972.

▲The late James D. Hagood, MD (right), senator from Halifax County for almost 30 years, is pictured in 1964 as he addressed his peers in the Senate chamber. To the left is Mills E. Godwin, then Lieutenant Governor, later Governor, of Virginia.

longed, with the Health Department."

DR. EDWARD E. HADDOCK, 69, Senate member from 1956 to 1964: "Other legislators, particularly when a bill is being considered at the committee level, turn to doctors on medical questions . . . It was a wonderful opportunity to serve my medical colleagues as well as all my constituents."

DR. PENNINGTON, 69, member of the House from 1960 through 1968: "The practice of medicine is an enigma to most laymen. Both the General Assembly and the Governor need advice as to what medical bills and resolutions are in the best interest of the commonwealth."

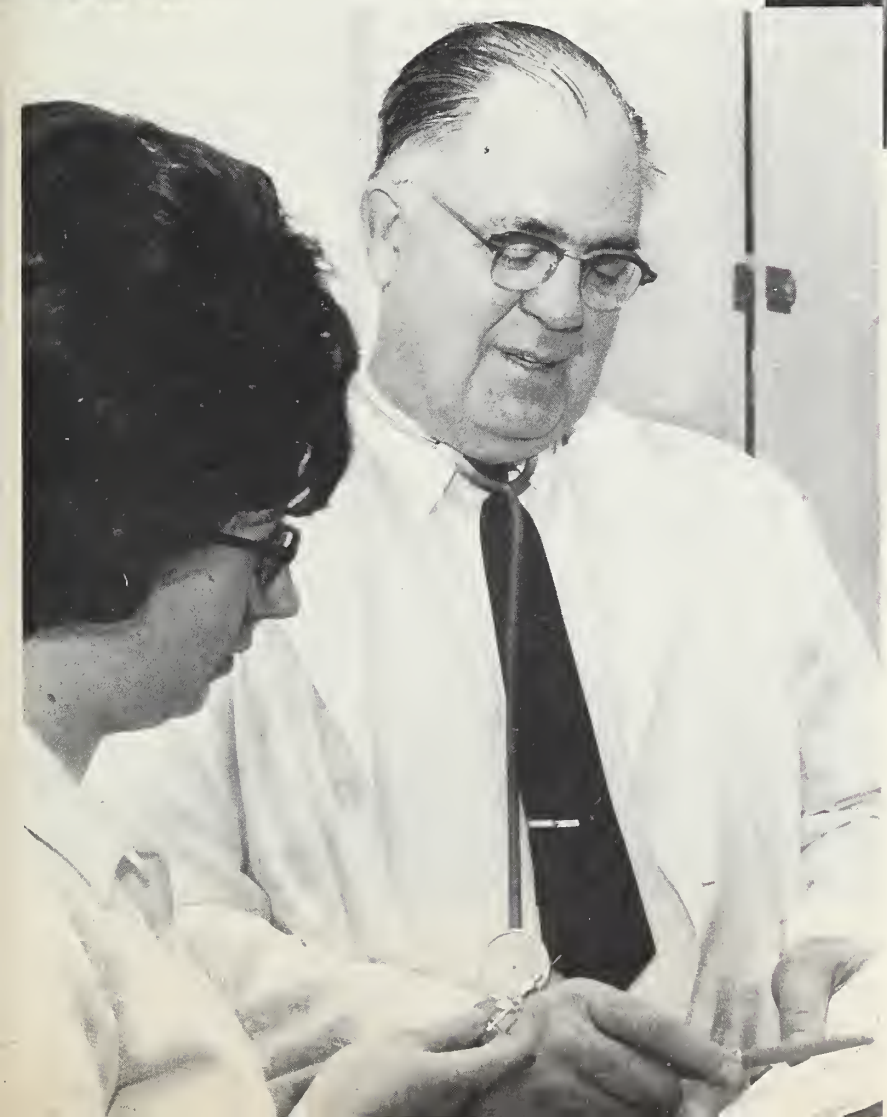
DR. REID, 55, member of the House for three terms beginning in 1968: "It is a very important role, because the legislature should have people of diverse professions [and] it is predominantly lawyers down there. On health matters, an MD is available on the floor, in the corridors and in committees to answer questions from non-medical lawmakers."

**How do you assess the state legislature as a whole?**

DR. BUCHANAN: "I have high regard for the body as a whole . . . in any group, however, some of its members are outstanding and some are pedestrian. In comparing the

▼ The late Jack W. Witten, MD, long a delegate from Tazewell County, is shown in 1952 with two of the many mountain boys he "adopted" and reared.

▲ Walter C. Elliott, MD, of Russell County at a microphone in the House of Delegates in 1962.



◄ Edward E. Haddock, MD, Richmond, shown here in his role as doctor, was a Virginia senator from 1956 to 1964.

Virgil Cox, MD, Grayson County, served in the House of Delegates from 1962 to 1965.

The late Walter Caudill, MD, senator in the early 1960s from Giles County.

General Assembly with Congress, I think the Assembly would rate well in both integrity and ability. I would hope that people in choosing their legislative representatives would chose persons more than average in ability and personal qualities. Virginia is fortunate—as a rule—in its legislators and governors."

DR. COX: "I found them to be outstanding men, trying to do something for the state of Virginia."

DR. ELLIOTT: "I consider the legislators the finest bunch of people I ever dealt with. Generally speaking, it is a very able group; I enjoyed the association immensely."

DR. HADDOCK: It is the greatest single gathering of some of the finest people in Virginia—though I will have to add that some are not quite so fine as others."

DR. PENNINGTON: "My first session in 1960 was a piece of cake; the country boys had everything under control with a common philosophy of conservatism; things had changed, though, by the time I decided not to run again for the House. Basically, I don't think the system can be much improved on."

DR. REID: "I found it to be what I considered an effective legislative body, with most bills considered adequately. I did find the legislature a little elitist, with what were usually county-boy committee chairmen endowed with perhaps a little too much power."

**How did legislative service affect your practice?**

DR. BUCHANAN: "It would completely disrupt a practice if one's goal as a physician were to make top income . . . that doesn't bother me, I make as much as I want to. I'm away from my practice both at the sessions (annual, now) and between sessions on legislative affairs,

William Ferguson Reid, MD, Richmond, at work in 1968 in Virginia's House of Delegates.

but with the fine cooperation of my associates, I am able to carry on my practice, since they cover for me and accept transfers of patients."

DR. COX: "You could just put it down as very difficult. I used to come home (260 miles) and practice on weekends, then drive back to Rachmond late Sunday night. You could sure put me down as tired when the sessions were over."

DR. ELLIOTT: "Well, one way you can figure it was that my bookkeepers told me that every year the legislature was in session my income was down $10,000."

DR. HADDOCK: "I managed to carry on my practice, but I realized it was easier for me because I lived right here in Richmond. But I managed to stay loyal to my patients, mainly through getting up earlier and going to bed later when the Assembly was in session."

DR. PENNINGTON: "It affected my practice to a point where my good wife (a physician also) was working herself to death while I was down in Richmond. That had a big affect on my decision not to go back; it simply was too much burden on her, because at that time we were the only doctors in the county."

DR. REID: "I would schedule surgery very early in the morning and then get down to the Capitol. Living in Richmond made it easier than it would for most doctors in the Assembly."

In addition to the answers to the questions above, there were some personal gleanings from the interviews, one of which entailed a call to the Dominican Republic to track down Dr. Reid, now a regional medical officer there with the US State Department.

Dr. Buchanan provided a chuckle when he talked of the deal he had made with Republican State Senator William A. Truban of Woodstock. Truban is a veterinarian. "We agreed," Dr. Buchanan confided, "that when the Senate is in session, I'll treat the Republicans and he'll treat the Democrats."

Dr. Buchanan and Dr. Reid are the two of the nine doctors here described who are not MCV alumni. Dr. Buchanan took his MD degree from the University of Virginia, Dr. Reid from Howard University.

There is one thing all nine physician-legislators appear to have in common—longevity. Dr. Hagood died at 83, Dr. Witten at 79, and Dr. Caudill at 74. Among the surviving six are some who couldn't exactly be acclaimed as spring chickens.


1. Shires CL: This Virginia doctor doubles as a senator. Va Med 107:100-103, 1980
2. Shires CL: Senate shepherd: Portrait of Edward E. Willey. Va Med 107:772-775, 1980



Carl Shires is a free-lance writer specializing in reportage of the Virginia legislature.


## Dr. Cramer's Crystal Ball

In this month of Ronald Reagan's inauguration, it is interesting to look back to the June issue of VIRGINIA MEDICAL, wherein Dr. Alfred B. Cramer, III, chairman of the Virginia Republican party, was quoted thus: "... we're gonna lick the hell out of the Democrats in Virginia."

He made that prediction at a VaMPAC-sponsored luncheon, where he also prophesied that Republicans might well hold nine of the ten Virginia seats in the US House of Representatives after the November elections.

So: Republican Reagan did indeed lick Democrat Jimmy Carter in the state's (and the nation's) presidential balloting, and at the new Congress convening this month, nine of the ten Virginians seated in the House will be Republicans. The tenth, W. C. Daniel of the Southwide 5th District, is a conservative Democrat who was unopposed.

Angus Macaulay, Democratic 3rd District chairman, came off well in the prediction department when he spoke at the same VaMPAC-sponsored luncheon. He came off well because he flatly refused to predict. "I really haven't studied it that well," he put it safely.

Meanwhile, Virginia Democrats are promising to regroup; late last year they chose delegate Owen Pickett of Virginia Beach as their new state chairman; he replaced Robert J. Davis, who resigned the post to get himself shaped up for a run for lieutenant governor.

With his classy forecast record, Dr. Cramer no doubt can stay on as the Republicans' chairman, if he wants to.

# Medicine at the General Assembly 1981

At its session beginning this month, Virginia's General Assembly will consider legislation of specific significance to physicians. Here are the recommendations relative to that legislation as prepared by the MSV Legislative Committee and approved by the House of Delegates.

**1. HB-762, Statute of Limitations**

Would change the statute of limitations for medical malpractice actions from two years from time of injury to five years from the time of injury or three years after discovery, whichever is shorter.

**Recommendation:** Oppose.

**2. Optometric Drug Bill**

It is anticipated that the bill which would permit optometrists to use diagnostic drugs will be introduced again this year.

**Recommendation:** Oppose.

**3. Mandatory Chiropractic Insurance Coverage**

Legislation is anticipated that would require Blue Cross-Blue Shield to include coverage for treatment by a chiropractor in all policies.

**Recommendation:** Oppose.

**4. Amputation by Podiatrists**

It is anticipated that a bill will be introduced that would eliminate the prohibition against the amputation of feet and toes by podiatrists.

**Recommendation:** Oppose.

**5. HB-925, Upgrading of Medicaid Fees for Physicians**

Would provide that medical or dental services reimbursed by the Medicaid program be paid for at the same rates as those paid by private insurance companies. There has been no increase in physician fees since 1969.

**Recommendation:** Support.

**6-7. SB-440, Child Restraints**

Would require use in motor vehicles of child restraint systems for all children under 4 years of age.

**Recommendation:** Support such legislation.

**8. Opticians Fitting Contact Lenses Without a Physician's Supervision**

The Department of Commerce will introduce a bill to allow opticians to fit contact lenses without a physician's supervision.

**Recommendation:** Oppose such legislation.

**9. HB-1002, Consumers on Board of Medicine**

Would add two public members to the Real Estate Commission, the State Board of Pharmacy, the State Board of Nursing and the State Board of Medicine.

**Recommendation:** Oppose.

**10. Immunity for Consultants Involved in Peer Review**

Smaller hospitals must occasionally hire outside experts to assist in a hospital investigation of a medical problem of uncertain origin. At the present time, the participants in any such investigations are not provided any statutory immunity. The Virginia Hospital Association plans to introduce a bill to provide such immunity.

**Recommendation:** Support.

**11. Modification of Immunity Statutes**

Several immunity statutes dealing with peer review by PSROs and component medical society committees require fine tuning to eliminate ambiguities and inconsistencies.

**Recommendation:** Introduce legislation to achieve needed changes.

**12. HB-87, Pituitary Gland Retrieval**

Would authorize the Chief Medical Examiner to remove the pituitary gland in autopsies under his statutory jurisdiction.

**Recommendation:** Support.

**13. Revision of Sterilization Laws**

A study commission is now revising the present sterilization laws, primarily with reference to sterilization of incompetents.

**Recommendation:** Assist study commission and presumably support its recommendations.

**14. HB-661, Hospice Licensure**

Would define hospice and provide for the licensure of hospice programs by the State Board of Health. Provide for the periodic inspection of hospices by the Department of Health and for the promulgation of regulations setting forth the minimum standards for a hospice and its staff.

**Recommendation:** Support.

**15. HB-524, "Truth in Insurance"**

Would require property or casualty insurer to supplement its annual statement to the Corporation Commission with various reports relating to its actual loss and expense experience.

**Recommendation:** Support.

**16. HB-872, Right to Natural Death; Brain Death—"Living Will"**

Would provide a procedure for person to declare that he does not desire any extraordinary means to be employed to sustain his life.

**Recommendation:** Oppose.

**17. Reporting of Venereal Disease in Children Under 10 Years**

A bill requiring venereal disease in children under 10 years of age to be reported as suspected child abuse is anticipated. The State Department of Health will oppose such legislation, for several reasons, including: 1) It is unnecessary. Any case of child abuse must be reported under the child abuse law. 2) It confuses child abuse with venereal disease. 3) It would make reportable as "child abuse" cases of congenital syphilis and ophthalmia neonatorum.

**Recommendation:** Oppose any change of current statutes.

**18. Immunity for Human Research Review Committees in Hospitals**

The Virginia Hospital Association plans to introduce a bill to provide immunity to members of human research review committees.

**Recommendation:** Support legislation.

**19. HB-321, Medicaid Coverage for Prenatal Care**

Would require the State Medical Assistance Plan to include prenatal coverage for indigent women who, because it is their first pregnancy, are not otherwise eligible through the program of Aid to Families with Dependent Children.

**Recommendation:** Support.

**20. HB-254, Licensure of Surgical Assistants**

Would require the State Board of Medicine to promulgate regulations for the licensure of surgical assistants. Defines "surgical assistant".

**Recommendation:** Oppose.

**21. SB-369, "Open Staff" for Privately Owned Dialysis Units**

Would make it an improper practice for the governing body of a medical care facility to deny any licensed physician privileges to treat a patient who needs medical treatment which demands the use of equipment for which a certificate of need is required.

**Recommendation:** No Position. While one effect of the certificate of need laws is to restrict competition, legislative changes to eliminate the problem, including the proposed bill, appear to create more problems than they solve.

**22. SJR-95, Study of Need for Regulation of In Vitro Fertilization**

Would request a joint subcommittee of the Senate Committee on Rehabilitation and Social Services and the House of Delegates Committee on Health, Welfare and Institutions to conduct a study on the advisability of legislation or agency rules to regulate the practice of in vitro fertilization and embryo transfers.

**Recommendation:** Oppose.

**23. SB-396, Optometrist as Lessee of Commercial Establishment**

Would permit optometrists to practice optometry as lessees of commercial or mercantile establishments with certain prescribed restrictions.

**Recommendation:** No position.

# Dying on the Highways: Virginia's Children

Joseph R. Zanga, MD, and Mark S. Becker, MD, *Richmond, Virginia*

In Virginia, motor vehicle accidents account for 42% of all childhood deaths. That's considerably more than the second leading cause, malignant neoplasms, on which we spend much time and money. These deaths on the highway are a "disease" for which we have a cure, say the authors, a cure that is simple and well researched but difficult to apply.

THE leading cause of childhood morbidity and mortality is the child who is an unrestrained passenger in a motor vehicle. Recognizing this, The Medical Society of Virginia, at its 1979 Annual Meeting, supported a resolution by its Committee on Child Health saying that "The Medical Society of Virginia strongly endorses the use of child restraints in automobiles . . . ". The resolution was supported by The Medical Society of Virginia's Highway Safety Committee and the Virginia Pediatric Society and became a recommendation to the 1980 General Assembly. Why this expression of concern?

Much has been said and written lately about accidents in general as the leading killer of our youth. It is known that they claim the lives of more youngsters 1 through 14 years than the other six leading causes of death combined. It is also known that, while deaths from other accidents have been static or declining, deaths from motor vehicle accidents have risen sharply.[1] Unfortunately, publicity about non-automotive accidents has tended to diffuse action in this most critical area. While we continue to talk about the problem, each year throughout the nation, tens of thousands of children are injured, many severely, as passengers in accident-involved automobiles.[2] Worse yet, during the year 1976, more than 2,000 youngsters aged birth through mid-teens died in or as a result of non-pedestrian auto accidents.[3] Nor has this figure changed for the better since then.

In Virginia, where accidents account for 40% of childhood deaths, motor vehicle accidents of all types account for 42% of the total.[4] That's a good bit more than the second leading cause, malignant neoplasms, a set of diseases on which we invest much time and money. Many of these auto accident deaths, over 70 per year, and most of the injuries, are a "disease" for which we have a cure, a cure that is simple, well researched and cost-effective, but one that has been difficult to apply.

In our society, there is a mystique about the automobile. It has been described in various ways by various commentators, but the pervasive tone of all reports is one of freedom. The ability to travel about when and where one chooses and in the precise manner one chooses is an important aspect of it. That freedom also appears to include the "right" to be to-

From the Department of Pediatrics, Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Zanga at Box 514, MCV Station, Richmond VA 23298.

Submitted 8-13-80.

tally unfettered. We are brought up that way. We ride home from the hospital in mother's lap. As soon as we are able, we stand on the front or back seat, face glued to the windshield or window, or ride rolling around in the back of the family wagon or pickup.

A 1975 study of passenger restraint use by actual observation of 5,000 private, occupied vehicles showed that only 22% of the drivers were in seat belts. Of more concern was that 93% of children under 10 years and 89% of those over 10 years were not restrained. It is interesting to note that when the drivers were using seat belts, only 22% of their child passengers were restrained, thus showing concern for their own safety not carried over to their children.[5] Statistics from a Washington state review of motor vehicle accidents are similar, showing only 15% of children under 5 years properly restrained.[6]

It is fact, then, that a significant number of our children die every year as a result of automobile accidents. It is fact that few of them are properly or adequately restrained while riding in motor vehicles. Does it follow that careful attention to the latter will favorably influence the former? The facts indicate that this is indeed so.

When the question of restraining children in cars is presented, the first counter argument is that it is unnecessary. It is said that an adult has the ability to restrain a child physically in an emergency. Logic says that this would be difficult since, in an emergency, the driver's attention is directed elsewhere. Physics tells us that this would be impossible since, even an infant in a 10-mph crash would require 200 pounds of restraining force. That goes up to a peak of almost 600 pounds at 30 mph. Practically, it simply doesn't work, as evidenced by the same Washington study quoted earlier, which noted that while no restrained children died during the study period, 82 unrestrained children were killed.[6] Other studies, especially in countries outside the United States, provide similar information.[7]

**Infant carrier (up to 9 months).**

**Child harness (up to 4 years).**

The second anti-restraint argument is founded on the premise that the children are in charge, that parents really have lost control. The reasoning is that regardless of how much safer they are, belting children into a restraint isn't really worth the "inconvenience". It is often said, "My child won't sit still for it". That's a telling statement. Most parents face a never-ending battle in the car, telling children to sit still, to be quiet, etc. They fear that restraining the children will worsen this distraction. The opposite is in fact true and must be explained to parents. For example, a study by E. R. Christopherson[8] showed that the use of safety restraints considerably lessened dis-

ruptive behavior during auto travel; he also demonstrated that this improvement persisted beyond the period in which the novelty of a car seat might have influenced the results.

Automotive passenger restraints for children, properly designed and used, will save lives and probably make automotive travel with children a sane and more pleasant experience. How, then, do we get people to use them? The two most acceptable alternatives are education and legislation. In the end, both will likely be needed, an unfortunate commentary on American attitudes.

Few would deny that education of parents as to the benefits of child restraints would be the ideal approach. Unfortunately, it doesn't seem to work. Parents who are critical of pediatricians' suggestions that children not be confined in playpens are also critical of their recommendation that children be restrained in cars. Reisinger's recent work on educating parents in the use of recommended infant carriers had disappointing results.[9] After much work and support, there was only a small increase in the use of restraint; and, even where use increased, less than 30% were used properly.

Those findings really are not surprising, considering our lack of success with other health education programs, notably the anti-smoking and adult seat belt use campaigns. Faced with this reality, we have to conclude that a legislative solution is essential. It is not an easy step to take, but we may follow the example of our neighbor, Tennessee, which enacted a child restraint law effective January 1, 1978; this law almost doubled child restraint use in its first six months alone, from 8% properly restrained to 16%.[10]

A legislative approach is not a popular one. It smacks of denial of individual freedom, and for that reason is shunned. Yet what freedom are we removing—the right of a child to die? In Virginia we have laws prohibiting adults from abusing and neglecting children. Isn't failure to restrain a child properly in a moving vehicle a neglect? Our Health Department periodically compaigns to enforce our immunization laws. Would many criticize these laws as denials of freedom? Yet when was the last death due to measles in Virginia?

With good reason, we frequently mandate the protection of our children. They require it and cannot speak out themselves. Their parents often have limited knowledge on these vital issues and, when confronted with absolute freedom of choice, frequently choose incorrectly. It becomes our duty to assist them, while simultaneously protecting the life of the child.

Safety education is and always will be important. It forms a basic part of every well child visit in our practice. Legislation is, however, the key to making that education effective in saving Virginia's children. For this reason, it seems that the time is now for the acceptance of the logical conclusion of The Medical Society of Virginia's recommendation: the passage of Senate Bill #440, sponsored by Senators Frederick T. Gray, Joseph V. Gartlan, Jr., and Charles L. Waddell, requiring the use of child restraint systems in motor vehicles in Virginia.

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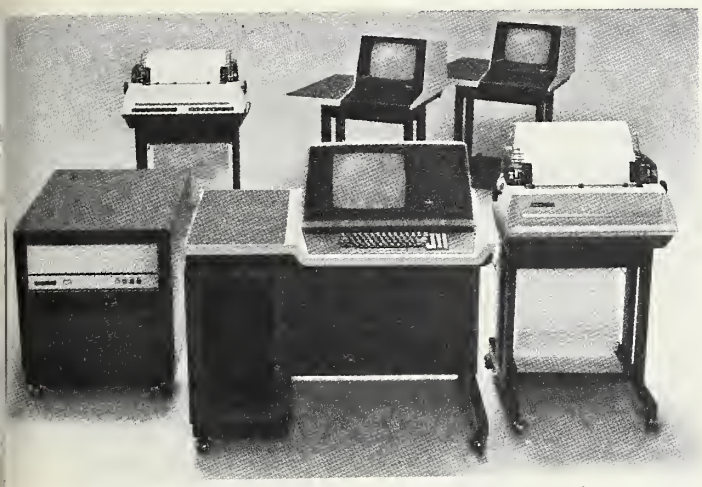

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# Cerebellar Hemangioblastomas and von Hippel-Lindau Syndrome

Susan E. Hellams, MD, Robert J. Cohen, MD, and Harold F. Young, MD,
*Richmond, Virginia*

With case report and review, the authors emphasize that cerebellar hemangioblastomas should be included in the differential diagnosis of any adult patient presenting with evidence of a posterior fossa tumor, and the patient should also be evaluated for the frequently associated hereditary disorder, von Hippel-Lindau syndrome.

ALTHOUGH accounting for only 2% of brain tumors, cerebellar hemangioblastomas are an important consideration in the patient presenting with symptoms of a posterior fossa cranial mass. In addition to their benign nature and excellent response to surgical therapy, they are frequently associated with the hereditary disorder, von Hippel-Lindau syndrome. This syndrome, which can have a multifaceted presentation within a single patient or family, is important to recognize in the patient with a cerebellar hemangioblastoma because of the increased incidence of other potentially fatal, yet treatable, lesions. We present a patient recently admitted to the Medical College of Virginia neurosurgery service whose family clearly demonstrates the hereditary and clinical aspects of von Hippel-Lindau syndrome.

From the Department of Surgery, Division of Neurological Surgery, and Department of Neurology, Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Young at Box 631, MCV Station, Richmond, VA 23298.

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**Case Report**

The patient, a 24-year-old white male, was admitted to the MCV neurosurgery service with a five-month history of severe early morning bifrontal-occipital headaches. Three months prior to admission, he began noticing blurred vision, diplopia, increased pupillary size and difficulty walking. He was also

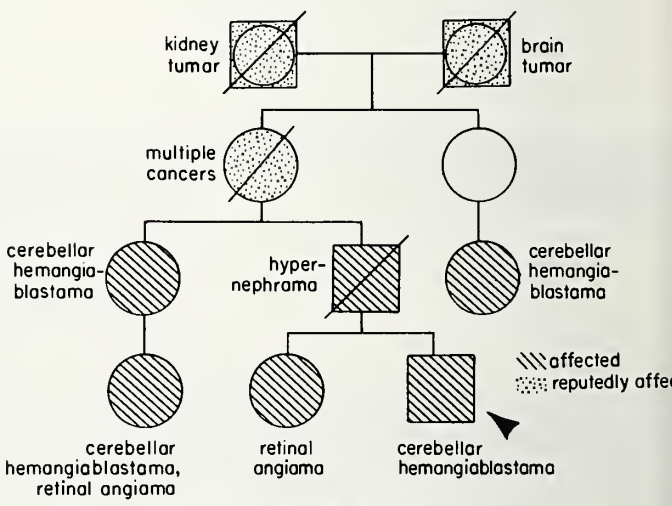


**Figure 1. Pedigree of family described in text.**

vomiting frequently during this period and claimed a 50-pound weight loss. His hospitalization was precipitated by a generalized seizure.

The patient's past history was significant for generalized tonic-clonic seizures since age 16, which had been treated with diphenylhydantoin. The patient was taking no anticonvulsants at the time of admission. The family history was particularly significant (Fig. 1). The patient's father died of hypernephroma, his paternal aunt had a cerebellar hemangioblastoma, and two paternal cousins had cerebellar hemangioblastomas and retinal angiomas. The sister's evaluation, prompted by the patient's admission, was normal with the exception of bilateral retinal angiomas (Fig. 2).

General physical examination was normal. Neurologic examination revealed bilateral dysmetria (left side more than right), difficulty performing rapid alternating movements bilaterally, unsteady tandem walking with the patient falling to the left, and mild, decreased sensation on the left. Nystagmus on lateral gaze and papilledema were present. No retinal angiomas were observed. Admission laboratory data and skull films were normal. Computerized tomography (CT) scan revealed a left cerebellar cystic mass (Fig. 3A) with a contrast enhancing peripheral lesion (Fig. 3B). Vertebral angiography demonstrated a 2-cm hypervascular mass in the left cerebellum with its main vascular supply via the left posterior inferior cerebellar artery and anterior inferior cerebellar artery (Fig. 4A&B). Hydrocephalus was present on both CT scan and carotid angiogram. An intravenous pyelogram (IVP) was normal. Six days following admission, the

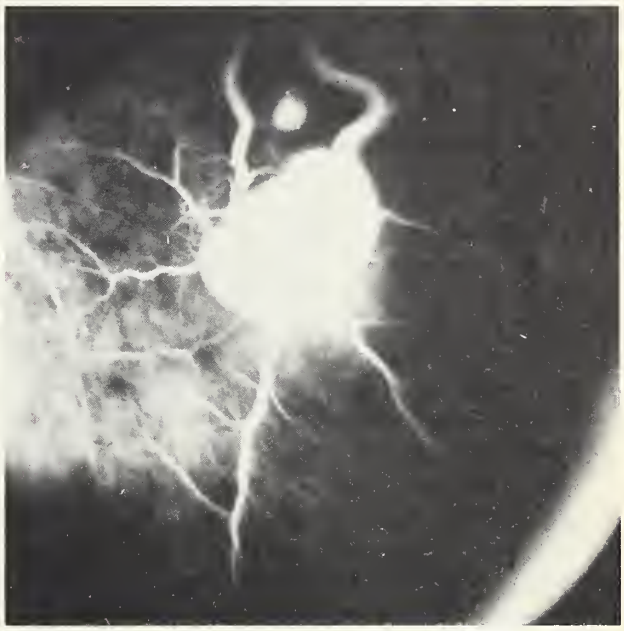

**Figure 2. Fluroscein angiographic demonstration of two retinal angiomas in patient's sister. Smaller angioma was not appreciated on indirect ophthalmoscopic examination.**

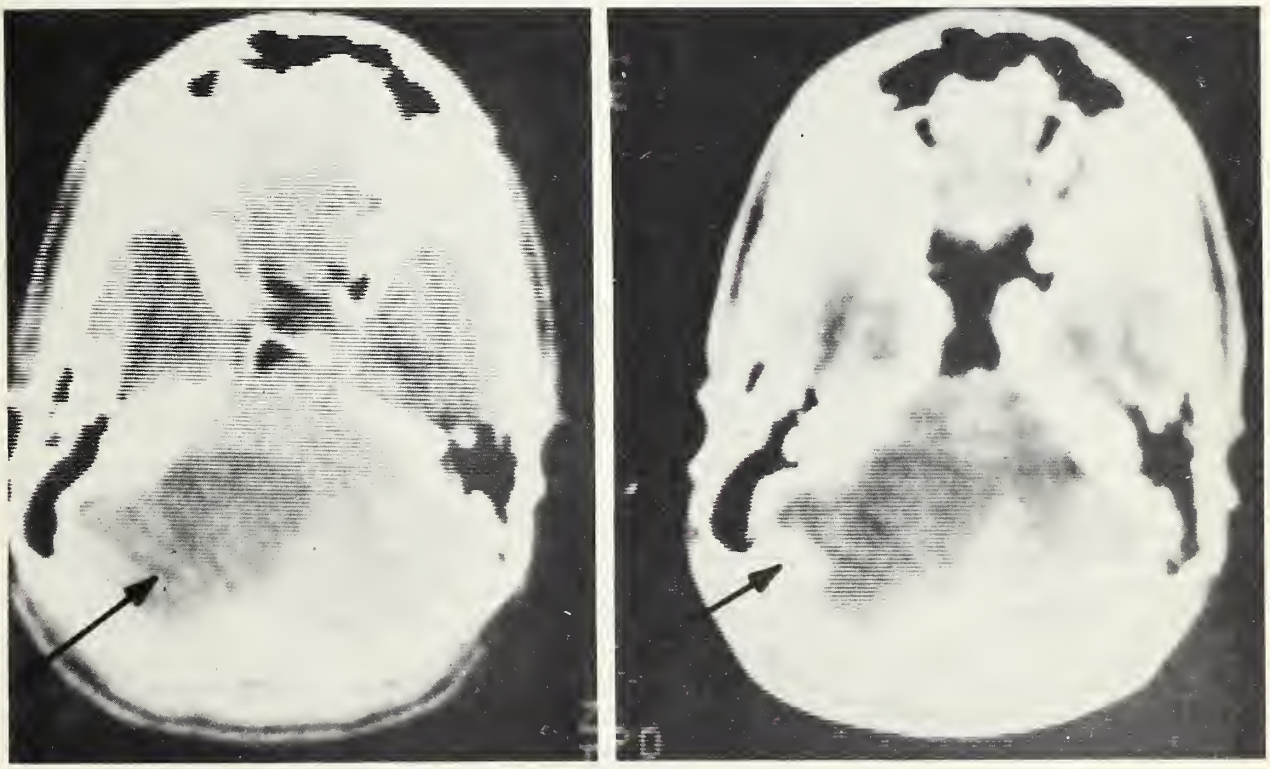

**Figure 3. CT scans demonstrating large cystic lesion with peripherally located contrast-enhancing mural-nodule: left, without, and right, with contrast medium.**

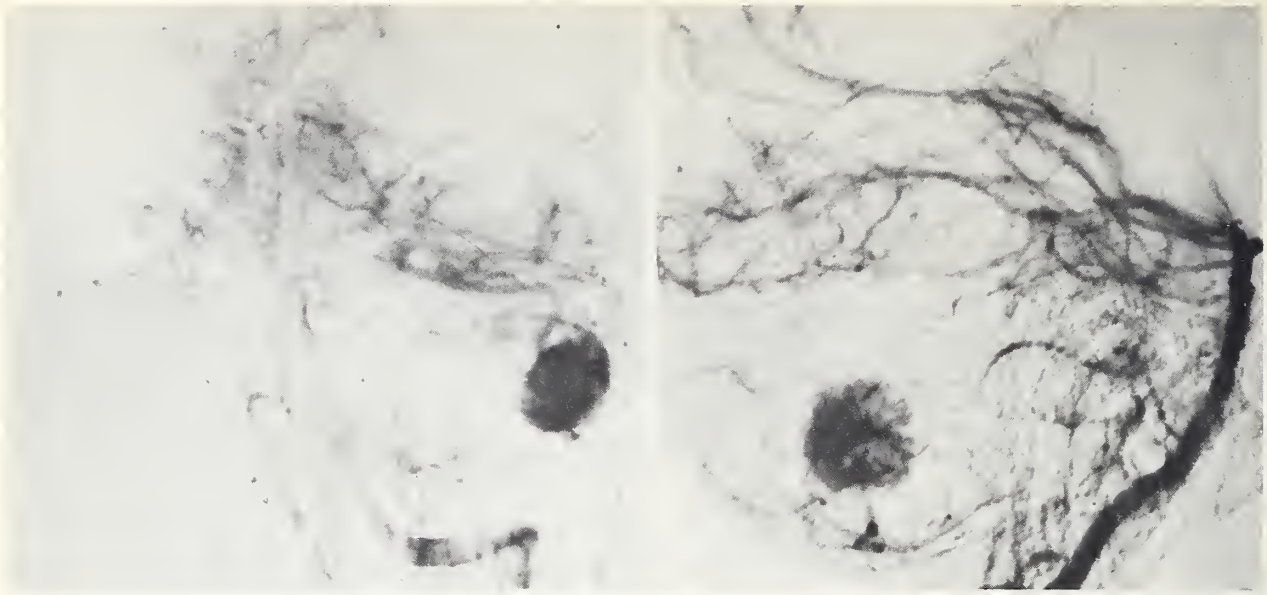

**Figure 4. Vertebral arteriogram (subtraction views) demonstrating vascular component of tumor: left, antero-posterior view; right, lateral view.**

patient underwent excision of a left cerebellar hemangioblastoma associated with a large cerebellar cyst. Pathology was consistent with the preoperative diagnosis. The patient had improvement of all symptoms by discharge.

**Discussion**

The case reports demonstrates the salient features of the von Hippel-Lindau syndrome. In addition to its association with angiomas of the cerebellum and retina (originally described by Lindau and von Hippel, respectively), cysts of the pancreas, kidneys, lungs, liver, epididymis, hypernephroma, and pheochromocytoma may also be present. Hemangioblastomas may occur in the spinal cord, medulla oblongata and, rarely, supratentorially. The cerebellum is by far their most common location. Rarely are more than two lesions found within a single individual, but the entire spectrum of the syndrome may be found within a family over several generations. The syndrome is inherited by an autosomal dominant gene with 70%-90% penetrance.[1,2] The diagnosis of von Hippel-Lindau syndrome can be made by demonstrating the presence of two vascular lesions in the same patient or the presence of a single vascular lesion in a patient with a positive family history.[1,3]

Cerebellar hemangioblastomas are a particularly important component of this syndrome because of their life-threatening nature. They are the fourth most common tumor of the posterior cranial fossa[5] and, as such, should be included in the differential diagnosis of any patient presenting with signs and symptoms of an infratentorial mass. Although the diagnosis can be made with certainty in a patient with a positive family history, cerebellar hemangioblastomas more frequently occur sporadically.

The most common presenting age is in the fourth decade of life, with cases rarely appearing before puberty or after age 60.[4,7] Females present at a slightly earlier age than males.[4,5] There is a slight male predominance ranging from 1.5–2:1.[5,7]

Patients present with a triad of symptoms consisting of headaches, vomiting, and ataxia—the usual symptoms of a posterior fossa cranial mass. Headache is the most consistent symptom.[2,4,5,7] Physical examination most commonly reveals papilledema and cerebellar signs, such as ataxia, slurred speech and dysmetria. Ocular palsies (most commonly abducens)[4] and facial nerve weakness are also frequently observed.[4,5] Rarely, the lesion may present as a subarachnoid hemorrhage.[4]

Eighty percent of the tumors have a preferred location in the cerebellar hemisphere. Vermian and fourth ventricular tumors account for 13% and 7% of cases, respectively.[5] The majority of these tumors (80%) have a large cystic component.[1,4] The mural-nodule, a firm, reddish-brown mass, is usually located in the cyst wall. Solid tumors occur less frequently and, like their cystic counterparts, are well delineated from surrounding tissue. Histologically, the tumors consist of endothelial cells forming capillary-like structures with stromal cells lying in the intercapillary spaces.[8]

CT scan and vertebral angiography are complementary tests in the diagnosis of cerebellar hemangioblastoma. CT scan is most useful in revealing

the presence and location of the cystic portion of the mass and in defining the relationship between the cyst and mural nodule. CT scan also demonstrates the frequently observed hydrocephalus. Vertebral angiography may reveal the vascular component of the tumor as well as the arterial supply and venous drainage of the lesions.[9]

Surgical excision is the best treatment modality. The average postoperative mortality in a large review series was 17%,[2] with more recent series reporting a mortality rate of 7% in cystic tumors and 25% in solid tumors.[7] This reflects improved surgical technique and earlier diagnosis due to better diagnostic tools. The tumors surrounding the fourth ventricle are associated with the highest mortality rate. Radiation therapy has been tried as the primary treatment modality and as a means to reduce tumor size preoperatively with little success, though a 55% reduction in tumor size has been demonstrated angiographically following radiation treatment of one patient.[10]

Recurrences occur in approximately 10% of cases.[4] This is more likely to occur in familial cases and with solid tumors.[4] Tumors may recur in previous operative sites or in a new location within the cerebellum.

Cerebellar hemangioblastomas occur in association with von Hippel-Lindau syndrome in 5-20% of cases.[4-6] If familial, there is an increased likelihood of the tumors being multiple,[5] recurring after surgical removal[4] and presenting at an earlier age.[1] It is important to search for other manifestations of the von Hippel-Lindau syndrome because of the morbidity and mortality associated with these features. The most common lesions causing symptoms (in addition to the cerebellar hemangioblastomas) are retinal angiomas, hypernephromas, and pheochromocytomas. Retinal angiomas occur in approximately 60% of affected individuals[11] and are frequently the earliest manifestation of the disease. They are usually located on the periphery of the retina. Indirect ophthalmoscopic examination provides a good screening tool for these lesions; however, fluroscein angiography may detect lesions not appreciated by ophthalmoscopic examination. Hemorrhage of these lesions may cause retinal detachment and secondary glaucoma. Enucleation may be required. Treatment at present is laser photocoagulation. Renal cell carcinoma occurs in approximately 25% of patients with von Hippel-Lindau syndrome.[11] In contrast to its sporadic counterpart, it usually occurs during the fifth decade of life, is usually bilateral and has a tendency towards multicentric origin.[11] Metastasis may occur in up to 50% of cases.[11] Pheochromocytomas occur in 10% of affected individuals and are usually bilateral. Diagnosis can be made by urinary vanillylmandelic acid (VMA) and catecholamine levels. Polycythemia may occur in 9%[2] to 24%[8] of cases. The hormone erythropoietin has been detected within the cyst fluid of the tumor.[12]

**Summary**

Cerebellar hemangioblastomas should be included in the differential diagnosis of any adult patient presenting with evidence of a posterior fossa tumor. Because of the association of this tumor with von Hippel-Lindau disease, the affected patient should have a careful evaluation consisting of a dilated, indirect funduscopic examination, fluorescein angiography and an IVP. In the presence of hypertension, the patient should be evaluated for pheochromocytomas. Asymptomatic family members are considered at risk, and should be fully evaluated with a CT scan in addition to the above studies. Reevaluation should be done at yearly intervals. Genetic counseling is mandatory.

The authors thank Dr. Charles Blair for granting permission for the use of the fluroscein angiogram.

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# Diagnosis and Management of Endometrial Carcinoma

Richard Belgrad, MD, *Richmond, Virginia*

The primary physician bears the responsibility for timely diagnosis of endometrial carcinoma, the author asserts, and he describes the stereotypic patient and assesses methods of detection. He also discusses the role of radiotherapy as an adjunct to the treatment of choice, surgery.

As in many areas of oncology, opinion as to what constitutes optimum management of Stage I endometrial carcinoma is subject to wide variation. It is generally recognized that surgery is the treatment of choice. The problem arises in assigning a proper role for radiotherapy as a surgical adjuvant—the indications, method of delivery and sequence in relation to the hysterectomy. Much of current practice in this area stems from historical precedent and prior training rather than from a rational approach based on the expected behavior pattern of a particular tumor. Consequently, some patients receive more radiotherapy than is required; others do not get the type of treatment indicated; and more than a few are needlessly subjected to unnecessary morbidity.

It is not an oversimplification to state that those who undertake to treat this cancer should be familiar with the implications of histology, the spread pattern and the expected sites of recurrence, in order to enhance treatment effectiveness and the patient's chance for recovery. This discussion seeks to offer a logical approach to treating early endometrial cancer, based on the author's experience integrated with recent information from the literature.

The typical profile of the patient with endometrial cancer is known well enough: she is overweight and middleaged and often suffering from mild hypertension and diabetes. She is usually of low parity. The increased use of exogenous post-menopausal estrogen products exposes yet a different group of women—perhaps the rejuvenated type pictured in medical journal advertisements.[1] An interesting link between obesity and abnormal estrogen metabolism has been postulated recently, which may be implicated in the development of breast and uterine cancer[2]; this relates to conversion and storage of adrenal steroids as estrogen in the form of estrone in the adipose tissue. If true, this is yet another cancer with environmental implications, reflecting the high-calorie diet, rich in fats and carbohydrates, prevalent in Western societies. An increase in new cases of endometrial cancer may be predicted, as this trend is expected to continue.

From the Division of Radiation Oncology, Department of Radiology, Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Belgrad at Box 58, MCV Station, Richmond VA 23298.

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**Patient Workup**

If, as the American Cancer Society says, every doctor's office is a cancer detection center, then the primary physician must bear the responsibility for timely diagnosis. He must entertain a high index of suspicion in the stereotypic patient, particularly around the menopause, when menstrual abnormalities are so common. A negative Pap smear is no reason for complacency, as cervical cytology is unrevealing in about half of cases. Aspiration techniques of the endocervical canal and uterine cavity increase the yield to about 75%, but are seldom performed by most physicians. A careful pelvic examination is always possible, and suspected cases deserve prompt referral for appropriate fractional curetage. This will involve curetting the endocervical canal before the uterine cavity itself, followed by measurement of the length of the uterine cavity, and may include biopsy of the cervix if a lesion is visible. Rectovaginal bimanual assessment of parametrial extension and, finally, histologic verification enables one to stage and grade the tumor preoperatively with some accuracy and to plan definitive management. The size of a uterus that is enlarged clinically is best described in centimeters above the symphysis pubis, rather than in relation to the age of a pregnant uterus, or the size of a certain fruit, or other such random analogies.

Stage, grade and depth of myometrial invasion are the keys that will determine treatment and prognosis.[3] The best situation is when the tumor is confined to a small uterus and is well differentiated, with no muscle invasion. Unfavorable factors include visible cervical tumor, a poorly differentiated grade, bulky tumor and deep myometrial invasion. The presence of an enlarged uterus plus moderately differentiated carcinoma, or minimal (less than ⅓) muscle invasion modifies the prognosis less predictably.[4] Since uterine enlargement could be due to fibroids, size per se is less helpful in assessing outcome. Moderately well differentiated carcinoma is a difficult diagnosis to deal with as far as predicting outcome is concerned.[4] The pathologist is reporting the presence of at least 25% of poorly differentiated cells, which may account for more aggressive biologic behavior of some tumors. Adeno-squamous carcinoma is a poorly differentiated variant, containing malignant squamous, as well as glandular, elements. These behave badly, in our experience, but adenoacanthomas, which show benign squamous metaplasia, have a better outlook.[5]

Microscopic involvement of pelvic lymph nodes is a function of stage, grade, and extent of muscle invasion.[6] Direct lymphatic channels between the uterus and the para-aortic nodes, which follow the ovarian vessels below the level of the renal pedicle, are sometimes responsible for the invasion of the para-aortic nodes, which can become enlarged and symptomatic. Retrograde peritoneal seeding through the fallopian tubes resulting in ascites is little recognized but seen in almost one-third of fatal cases.[7] The most frequent site of relapse appreciated clinically is in the upper vagina; initially reported in 10% to 15% of unirradiated cases, its incidence is reduced to about 1-2% by radiotherapy.[8,9] Ironically, it is the custom of some practitioners managing these patients to employ intensive doses of radium in the uterus, which will be removed, but none in the upper vagina. Several cases with vaginal recurrence referred to the Medical College of Virginia had been managed this way. Relapse within the pelvis within two years of surgery is serious and usually heralds an incurable situation. Nevertheless, 20-25% of patients with lesions confined to the vaginal apex can be salvaged with subsequent radiotherapy.[10] Distal vaginal metastasis is more ominous and is invariably followed by the development of metastatic lesions elsewhere.

In general, the laboratory workup of patients with early endometrial cancer need include only standard tests, such as chest x-ray, CBC, SMA 12, serology and urinalysis. Intravenous pyelogram, barium enema, cystoscopy and sigmoidoscopy are also carried out in some institutions but are of low yield in the asymptomatic case. In the absence of specific indications, these studies can be justified only within the context of a more extensive workup indicated for medical reasons. Ultrasound and CT scans are newer modalities and are becoming quite useful for more precise tumor definition. These may be of value in revealing undetected sites of extra-uterine involvement in the pelvis or para-aortic nodes in selected high-risk cases.

**Carcinoma of the Endometrium.**

Stage I: Carcinoma confined to corpus.
Stage IA: Length of uterine cavity 8 cm or less.
Stage IB: Length of uterine cavity more than 8 cm.
G1: Highly differentiated adenomatous carcinoma.
G2: Moderately differentiated adenomatous carcinoma with partly solid areas
G3: Predominantly solid or entirely undifferentiated carcinoma.
Stage II: Carcinoma involves corpus and cervix but not extended outside uterus.
Stage III: Carcinoma extended outside uterus but not outside true pelvis.
Stage IV: Carcinoma extended outside true pelvis or obviously involves mucosa of bladder or rectum. (A bullous edema as such does not signify Stage IV.
Stage IVA: Spread of growth to adjacent organs.
Stage IVB: Spread to distant organs.

**Adjuvant Therapy**

Approximately three-quarters of patients will have favorable lesions and require no additional treatment. Their prognosis will be excellent. Less than 5% of this group will develop local recurrence, hardly justifying adjuvant treatment, in the view of many radiotherapists.[11] This leaves 25-30% of women with unfavorable tumors who will require additional attention. If adjuvant radiation seems indicated, should it be given preoperatively or postoperatively, and should it be administered by intracavitary or external means? As better information becomes available, postoperative external radiation therapy is gaining favor as best for most women requiring adjuvant treatment.[1,12,13] The depth of myometrial invasion has proved an accurate marker of potential pelvic node involvement.[6] Preoperative irradiation eradicates existing tumor in half of cases;[5] that this group fares better is self-evident, as most will have little or no muscle invasion. About half of those with muscle extension and positive pelvic nodes will also have paraaortic nodal involvement, thereby demonstrating disease extension beyond conventional radiotherapy portals.[6] This leaves approximately half with myometrial invasion who might still benefit by local treatment. Kagan reported that over half of those with deep myometrial invasion who relapsed (26/40) developed vaginal recurrence.[14] In another study, seven of 15 patients with vaginal metastasis had had muscle invasion.[15] So the extent of muscle invasion, an important facet in treatment planning, could be obscured by preoperative irradiation. Since the uterus itself is to be removed, the logic of preoperative intracavitary radium treatment is lacking, particularly since the dose to the lateral pelvic lymph nodes is low, and to adjacent bowel and bladder, high. There has never been any evidence linking metastatic dissemination at the time of surgery to the use or non-use of prior preoperative treatment. How about the potential for spread of tumor cells during previous pelvic examinations or D&C? An additional argument against the preoperative use of intrauterine radium (or cesium) is the reduction of unnecessary radiation exposure to operators, nurses and others who must handle the radioactive materials or administer to the patient. Postoperative external irradiation delivers a homogenous dose to the entire pelvis, including the upper vagina, and should be as effective as preoperative therapy, without delaying definitive surgery.[1,12,13] No controlled prospective or randomized study has as yet clearly demonstrated the superiority of preoperative or postoperative radiation. There is little evidence that postoperative treatment is less well tolerated or associated with a higher morbidity.[12,13]

Some doubt the value of any extra treatment in Stage I disease. Piver compared preoperative intrauterine radium with hysterectomy alone or hysterectomy followed by postoperative vaginal radium;[16] no external radiation was given, and the preoperative radium did not include treatment to the vagina. Predictably, 16 of 17 vaginal or pelvic recurrences occurred in the preoperative uterine radium group and in those receiving surgery only. There were no vaginal recurrences in the postoperative vaginal radium group. Of the total series, 70% had Stage I, Grade 1 lesions and could be expected to do well anyway. Piver further concluded that patients with grade 3 lesions were virtually all doomed to develop extra-pelvic metastasis, minimizing the value of local external irradiation, this based on results in only seven patients. The study neglected others, with Grade 2 lesions or less extensive muscle invasion, who might still be at risk for local recurrence, yet have negative paraortic nodes.

In a more carefully controlled Norwegian study, Onsrud and Kolstad assessed the value of postoperative pelvic irradiation in 386 Stage I patients, all of whom had received vaginal radium.[8] The 5-year survival was the same (90% vs. 88%) whether the external radiation was given or not. The results were excellent in both groups, but all received some pelvic treatment in the form of vaginal radium. Those undergoing pelvic irradiation in addition showed 2% local failures (4/91), compared to 14/195 (7%) in the "control" group. Local and regional failures were equally bad, with a medium survival of two years. Those receiving external therapy showed a 2-fold increase in the incidence of distant metastasis as the site of first relapse (19 vs. 11). Both groups contained an equal number with high grade lesions, in whom most of the failures occurred. The authors concluded that only cases with anaplastic, deeply infiltrating tumors might benefit from additional external therapy, by virtue of reduction in pelvic recurrences. Perhaps external radiation alone would have accomplished the same result. There was no mention of complications in the combined therapy group.

Since prevention of potential vaginal metastasis is an important reason for adjuvant radiation, it is of interest to analyze its true frequency. Earlier series reported up to 17% of cases metastatic to the vagina, but these included lesions appearing before treatment and in all stages of disease.[9] In clinical Stage I, the incidence is closer to 7% and mainly in deeply infiltrating, anaplastic tumors.[13-15] This can be decreased effectively by a variety of radiotherapeutic

techniques.[8,15,17] The use of postoperative vaginal radium has had its advocates and has been employed routinely by some, if no preoperative radiation has been given.[8,9] Unfortunately, vaginal cylinders are often associated with significant morbidity—almost one-third of those so treated at the Medical College of Virginia have developed moderate to severe sequelae, including proctitis, cystitis, vaginal stenosis or vulvar ulceration. External irradiation is equally effective, a more logical approach and associated with less morbidity.

## Summary

The use of adjuvant radiation therapy should be selective in Stage I endometrial carcinoma and limited to those with bulky tumor, Grade 2 and Grade 3 histology, and/or myometrial invasion. Postoperative external therapy is most logical, can be expected to decrease likelihood of local recurrence and may improve survival. The use of preoperative intrauterine or postoperative vaginal radium has its advocates but is not encouraged by the author. The discovery of an effective systemic agent is urgently needed for those with anaplastic lesions, as many will ultimately develop metastasis outside the pelvis.

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# Pyloric Atresia in Male Siblings

M. Balasubramaniam, MD,
and Wolfgang Zahnke, MD,
*Big Stone Gap, Virginia*

THIS CASE presents the unusual occurrence of pyloric atresia in two male siblings.

A baby boy was born recently to a 32-year-old gravida 6, para 5 mother, after uneventful pregnancy and normal full term delivery. The mother did not suffer from hydramnios during pregnancy. The baby developed persistent non-bilious vomiting soon after birth. There was no distension of the abdomen, and he had two bowel movements. Intestinal obstruction was suspected, and plain X-ray of the abdomen showed a single gastric bubble and no air in the intestine. At surgery, the only abnormality found was a septum, 0.5 cm long, in the pylorus. Gastroduodenostomy was done, and the baby had an uneventful postoperative course except for wound infection.

Family history revealed that this boy has one brother 5 years older and four sisters. The brother had surgery for pyloric atresia at age three days of life and does not have any other congenital defect. The parents are not consanguineous.

In the literature, there are reports of pyloric atresia occurring in siblings in association with epidermolysis bullosa, and of identical twin boys suffering from pyloric atresia without any other abnormality. So far, to our knowledge, there is no report of male siblings having had pyloric atresia.

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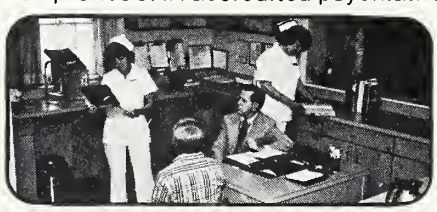

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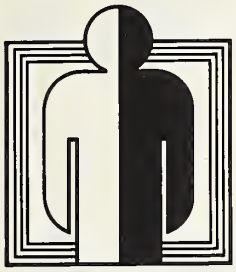

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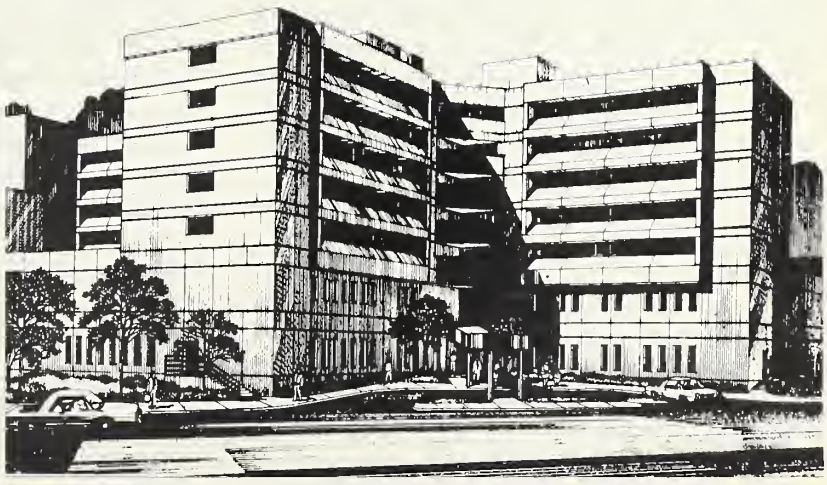

The Medical Society of Virginia
PROCEEDINGS

# Minutes of the House of Delegates

## First Session

The House of Delegates of The Medical Society of Virginia met in the Virginia Room of the Williamsburg Conference Center on Thursday, November 6, 1980. The meeting was called to order by Dr. K. K. Wallace, Jr., Speaker, and the invocation offered by Dr. Raymond Brown.

Dr. Charles Ashby, chairman of the Credentials Committee, reported a quorum present. All but seven component societies were represented.

Dr. John Krueger, chairman, then presented the report of the Rules Committee. The Rules of Procedure were adopted as published in the delegates handbook.

The minutes of the 1979 sessions of the House of Delegates were then approved.

Dr. Wallace then introduced Dr. Robert Hunter, President of the American Medical Association. Dr. Hunter congratulated VaMPAC on the fine job it was doing and took note of its steadily increasing membership. He also congratulated the Auxiliary on its many contributions to medicine in Virginia. He called the Virginia AMA delegation one of the most effective in the House and lamented the fact that Virginia does not have more AMA members. Dr. Hunter went on to say that AMA is the only real protection medicine has at the national level and that it represents today's hope for tomorrow.

The Speaker then introduced Dr. Dorothy Starr, president, Medical Society of District of Columbia; Dr. Walter Fix, president, West Virginia State Medical Association; Dr. Vincent Fiocco, Jr., president, Virginia State Dental Association; Mrs. Cheryl Showalter, president, American Association of Medical Assistants, Virginia Society; Mrs. Barbara Bolton, executive director, Virginia Nurses Association, and Mrs. Hazel Lewis, executive director, AMA Auxiliary.

Next to be introduced was Mrs. Dorothy Sellars of Richmond, who was only recently installed as president of the American Association of Medical Assistants.

Mrs. Charles G. Smith, president of The Medical Society of Virginia Auxiliary, presented a most interesting report on Auxiliary activities and accomplishments during the year. She reported that $240,000 had been contributed to many projects over the state. The Auxiliary was quite active in such areas as community service, voter registration, CPR instruction, mental retardation, cost containment, Walter Reed birthplace, alcohol and drug abuse programs, VaMPAC, etc, Mrs. Smith also reported that Mrs. William Reardon had been elected Eastern Regional vice president of the AMA Auxiliary.

Also introduced was the Auxiliary President-Elect, Mrs. M. Pinson Neal.

The House then heard from Mrs. John Vaughan, president of the AMA Auxiliary. Mrs. Vaughan stressed the fact that the Auxiliary is anxious to help in any way that it can and mentioned the voluntary effort for cost containment and health planning activities (HSAs) as good examples.

Dr. Nipe then delivered his Presidential Address and reported that although the Society had been forced to contend with a number of problems involving litigation, it could look back on twelve months of progress and accomplishment. He called attention to the comprehensive program carried on by Vanguard and praised VaMPAC for providing a means by which Virginia physicians can make their collective voices heard in the world of politics. Dr.

Nipe went on to discuss such matters as Appropriateness Review, future Annual Meeting formats, continuing medical education, professional liability, and other matters of interest to the membership. His address was to be published in the December issue of the VIRGINIA MEDICAL.

Following a brief recess, a slate of nominees for the Nominating Committee was presented. The slate was elected.

The Speaker, at this point, called upon Dr. Carmines to report on activities of the AMA House of Delegates during the past year. Dr. Carmines reported that the House had been faced with the task of handling several hundred items. Among the more important were matters involving medical ethics, membership, national health insurance, etc. He referred to AMA as a "VIP" organization—possessing value, integrity and principle. He expressed the hope that more and more members of the Society would attend and participate in AMA meetings. He also requested that the membership let the Virginia delegation know how they feel about matters under consideration. Only by obtaining input and feedback can the delegation truly fulfill its purpose and realize its objectives.

The annual report of the Finance Committee, including a proposed budget for fiscal 1980-81, was presented by Dr. Puzak. Dr. Puzak stated that the Society remained in excellent financial condition even though it had been confronted with unforeseen legal expense. He went on to say that the Committee was presenting a balanced budget and that no assessment or dues increase appeared necessary for the coming year.

Following an explanation by the chairman of the various budgeted items, the proposed budget was referred to Reference Committee No. 4.

A supplemental report from the Vanguard Committee was then received and assigned to Reference Committee No. 3.

The Speaker indicated that those Committee reports published prior to the meeting would be assigned to appropriate reference committees.

Dr. Wallace then called for new business and reminded the House that late resolutions must always be submitted to the Rules Committee for consideration. A resolution sponsored by the Prince William County Medical Society on third-party fee scales fell into this category and had been cleared by the Committee.

It was then announced that Reference Committees No. 1 and No. 2 would meet the following morning at 8:30, and Reference Committees No. 3 and No. 4 at 1:30 in the afternoon. Complete agenda and reference committee rosters would be available in the registration area as soon as possible.

Following announcements concerning meetings of the Nominating Committee and Reference Committee chairman, the first session of the House of Delegates was declared recessed.

Robert I. Howard, Secretary

APPROVED:
**K. K. Wallace, Jr., M.D.**, Speaker

## SECOND SESSION

The second session of the House of Delegates of The Medical Society of Virginia was called to order by the Speaker at 1:30 pm on Saturday, November 8, in the auditorium of the Williamsburg Conference Center.

Dr. Charles Ashby, chairman of the Credentials Committee, reported a quorum present. Forty-one component societies were represented by a total of 210 delegates.

The report of the Nominating Committee was then presented by Dr. William Liddle.

Dr. H. C. Alexander, III, was unanimously elected to the office of President Elect.

Dr. Harold L. Williams was elected First Vice President; Dr. Anthony J. Munoz, Second Vice President; and Dr. James R. Holsinger, Third Vice President.

Dr. Richard L. Fields was elected Speaker of the House, and Dr. William H. Barney was chosen Vice Speaker.

Elected to Council were the following:
2nd District: Dr. Frederick K. McCune
4th District: Dr. Charles H. Crowder, Jr.
6th District: Dr. Wm. W. S. Butler, III (reelected)
8th District: Dr. Nicholas G. Colletti
10th District: Dr. C. Barrie Cook (reelected)

Elected as Vice Councilors were:
1st District: Dr. William H. Sipe (reelected)
2nd District: Dr. Russell D. Evett
3rd District: Dr. James A. Shield (reelected)
4th District: Dr. James V. Scutero (reelected)
5th District: Dr. Lawrence V. Marshall (reelected)
6th District: Dr. Robert L. Keeley

7th District: Dr. John A. Owen, Jr.
8th District: Dr. Ira J. Green
9th District: Dr. James L. Patterson, Jr.
10th District: Dr. Leon I. Block

Robert I. Howard was reelected Executive Vice President.

The following nominations for the State Board of Medicine were then received from the 3rd and 4th Districts:

3rd District: Dr. Edwin L. Kendig, Jr.
Dr. Robert E. Mitchell, Jr.
Dr. Robert O. Hudgens

4th District: Dr. George J. Carroll
Dr. Anthony J. Munoz
Dr. Charles H. Townes

The nominees were approved and their names will be submitted to the Governor for consideration.

The House was advised that the terms of Dr. Martin and Dr. Carmines as AMA delegates will expire on December 31. The terms of Dr. Hagood and Dr. Kirk as alternate AMA delegates will also expire at that time. Dr. Martin and Dr. Carmines were reelected as delegates and Dr. Hagood and Dr. Kirk were reelected as alernate delegates.

Dr. Richard Palmer, Past President of AMA and The Medical Society of Virginia, was then called upon to conduct a special installation service for the Society's new officers. Following the installation, there was a short recess during which time a group photograph of the House was taken just outside the Lodge.

Dr. McCune was then called upon to present the report of Reference Committee No. 1.

## Reference Committee No. 1

### Report of Committee on Aging

The House concurred with the Committee's recommendation that the last sentence of Recommendation No. 2 be deleted and that the recommendation be amended to read as follows:

**Physicians should assist in the effort to maintain elderly patients in their home environments, thereby reducing the number of such patients in mental health facilities. State funding must be considered in such an effort for the establishment of community programs designed to meet the needs of the elderly.**

The House then agreed with the Committee's recommendation that the report of the Committee on Aging be adopted as amended.

**Dr. Palmer (left) installs officers. Dr. K. K. Wallace, Jr. (right) stepped down as Speaker of the House.**

### Report of Cancer Committee

The House adopted the following three recommendations as recommended by the Committee:

**1. That The Medical Society of Virginia endorse the cancer program of the Commission on Cancer of the American College of Surgeons and encourage all hospitals to develop and seek approval for such programs, as well as participating in the Virginia Tumor Registry.**

**2. That the Program Committee expand the present annual meeting cancer format with something more informal at the time of the meeting, such as a presentation of a series of problem cases of some form of cancer that would allow a discussion by both panel members and audience participants.**

**3. That all physicians support screening and detection programs designed to promote the diagnosis of cancer at an early stage.**

### Report of Committee on Education

The House was advised that the list of accredited organizations contained in the report of the Committee on Education lists "Fairfax Hospital Consortium, Falls Church, three hospitals". The listing should read "Fairfax Hospital, which co-sponsors programs in two other hospitals".

With the correction duly noted, it was the Reference Committee's recommendation that the report be filed. The House concurred.

### Impaired Physician Study

The House agreed that the recommendation calling for the study to continue should be adopted. It

also agreed with the Reference Committee that the remainder of the report be filed.

**Report of Mental Health Committee**

The report of the Committee on Mental Health contained two recommendations. The first was concerned with the impaired physician study and the House agreed that it is not the prerogative of the Society to continue any program being carried on by the State Board of Medicine. Instead, the Society should closely observe the Board's current program and urge that difficulties experienced by any member of the Society as a result be reported in order that a meaningful experience can be developed within the current system.

The second recommendation called for the appointment of a psychiatrist to the Society's Insurance Committee. The House again agreed with the Reference Committee that it is the prerogative of the President to appoint members of committees and, consequently, action on the recommendation would not be possible without an appropriate amendment to the bylaws.

The House concurred with the Reference Committee that the report should be adopted as "substituted and deleted".

**Report of Sports Medicine Committee**

The report of the Committee on Sports Medicine contained two recommendations, one requesting that a registry for athletic trainers be established by the Society and the other recommending establishment of a state council on physical fitness. The Reference Committee noted that there were no specifics regarding certification, acceptability of reciprocity, or the mechanism associated with maintaining a registry. It also noted that the General Assembly had rejected the establishment of a state council on physical fitness.

It was, therefore, the Committee's recommendation that the recommendations be returned to the Committee on Sports Medicine for more specific delineation as to cost, personnel requirements, the establishment of a certification body and other cogent information. The House concurred.

**Report on VIRGINIA MEDICAL**

The Committee complimented the Editors and Editorial Board for their fine work with VIRGINIA MEDICAL and recommended that the report be filed. The House agreed.

**Committee Reports**

The House agreed with the Reference Committee that the following reports be filed: Auxiliary Advisory, Hospital Advisory, Joint Practice, Liaison to State Bar, Public Relations, Rehabilitation and Rural Health.

**Report of Council**

Those items in the report of Council having to do with annual meetings and annual meeting formats were considered jointly along with that portion of Dr. Nipe's Presidential Address bearing on the subject. Although the Reference Committee voiced some concern over the ability of some hotels to provide the required facilities, it nevertheless enthusiastically supported the expansion of the scientific program to accommodate the many specialty groups anxious to participate. The House agreed.

The House was informed that the quality assurance seminar, mentioned in Item 5 of the report, had been cancelled and no action was required.

The House shared with the Reference Committee its enthusiasm for the updated "Principles of Cooperation for Physicians and Attorneys in the Commonwealth of Virginia" as prepared by the Society and the Virginia State Bar. It adopted a Reference Committee recommendation that the Society, in cooperation with the Bar, publish the principles in booklet form and circulate them to the membership.

Those items in the report of Council entitled "Symposium on Emergency Medical Services", "Travel Program—1981", "Liaison with Industry and Labor", and "Chiropractic" were filed in keeping with the Committee's recommendation.

**Resolution on Joint Commission on Accreditation of Hospitals** *(Sponsored by the Richmond Academy of Medicine)*

The following resolution was adopted as recommended by the Committee:

**WHEREAS, the House of Delegates of the American Medical Association has questioned the arbitrary practices of the Joint Commission on Accreditation of Hospitals and is now cooperating with an ad hoc committee addressing these criticisms, be it therefore**

**RESOLVED, that the House of Delegates of The Medical Society of Virginia wholeheartedly support the American Medical Association in its efforts.**

**Resolution on Colonel Robert P. Carroll** *(Sponsored by the Norfolk Academy of Medicine)*

After agreeing to an editorial change which would substitute the word "physicians" for the word "doctors", the following resolution was adopted as recommended:

**WHEREAS, Colonel Robert P. Carroll, during his academic career at the Virginia Military Institute, made such an outstanding impact upon the education of approximately 900 cadets, of whom 500 are physicians and dentists, be it therefore**

**RESOLVED, that The Medical Society of Virginia express its sincere appreciation of his tireless efforts and outstanding contributions to the education of our many physicians and dentists, and be it further**

**RESOLVED, that this resolution be spread upon the Minutes of this session of the House of Delegates of The Medical Society of Virginia, and be it further**

**RESOLVED, that a copy of this resolution be sent to Colonel Carroll.**

**Resolution on Health Care Standards for Virginia Jails** *(Sponsored by the Liaison Committee to the Virginia Sheriffs' Association)*

Acting on the recommendation of the Reference Committee, the following resolution was adopted:

**WHEREAS, this Committee unanimously concurs that there exists a need for health care standards for correctional institutions in Virginia, and**

**WHEREAS, there are no Virginia standards for health care in such institutions at this time, and**

**WHEREAS, the Committee believes that it is in the best interest of all concerned to establish such standards—with the following qualifications:**

1. **A number of the standards adopted by the American Medical Association can be met without added cost;**
2. **there are also a number of standards which possibly can be utilized should future budgets permit; and**
3. **a number of the standards will not, for various reasons, be implemented by individual jails; and**

**WHEREAS, certain of these AMA standards may not be applicable because of excessive costs, geographic distances involved in certain types of specialty care and, in some instances, total non-existence of specialty care, and**

**WHEREAS, the Committee agrees that these standards can be implemented—with the qualifications previously noted—without having to resort to short-term grant programs for the purpose of obtaining "seed money", be it therefore**

**RESOLVED, that the standards for health care in correctional institutions as established by AMA be approved for Virginia with the noted qualifications being clearly delineated.**

The report, as a whole, of Reference Committee No. 1 was adopted as amended.

## Reference Committee No. 2

Dr. George Broman was next called upon to present the report of Reference Committee No. 2.

**Legislative Committee**

The House, acting in accordance with the Reference Committee's recommendation, directed that the Legislative Committee report be filed.

**Supplemental Report of Legislative Committee**

The following items contained in the supplemental report of the Legislative Committee were adopted as recommended: "Open Staff" for Privately Owned Dialysis Units, Optometrists Practicing as Lessees of Commercial Establishments, Study of Need for Regulation of In-Vitro Fertilization Programs, Pituitary Gland Retrieval, Licensure of Surgical Assistants, Medicaid Coverage for Prenatal Care, Upgrading of Medicaid Fees for Physicians, Truth in Insurance, Hospice Licensure, Statute of Limitations, "Living Will", Consumer Membership on Board of Medicine, Changes in Certificate of Need Statute, Definition of the Word "Physician", Malpractice Legislation, Repeal of Federal Appropriateness Review Statute, Modification of Immunity Statutes, Opticians Fitting Contact Lenses without Physician Supervision, Changes in Definition of the Practice of Podiatry, Mandatory Chiropractic Insurance Coverage, Optometric Drug Bill, Revision of Sterilization Laws, Reporting of Venereal Disease in Children under 10 Years, Immunity for Consultants Involved in Peer Review, and Immunity for Human Research Review Committees in Hospitals.

That item having to do with carry-over legislation on child restraints was considered separately and adopted.

The House was advised that a great amount of consideration was given that portion of the report concerned with the statutory prohibition on the use of polyscrips. The House concurred with the Reference Committee that the following substitute recommendation be adopted:

**Have Council investigate possible alternatives to the complete prohibition of the use of polyscrips.**

Also receiving a great amount of consideration was that portion of the report pertaining to impaired physicians. The House agreed with the Reference Com-

mittee that careful study of the inclusion of a voluntary treatment program as the initial step in dealing with the impaired physician is desirable. It then voted to amend the Legislative Committee's recommendation to read as follows:

**Work with the Board of Medicine to try to initiate an investigation of possible improvements in the impaired physician program, including modification or repeal of mandatory reporting requirements, if indicated.**

**Report of Liaison Committee to PSRO**

The House agreed with the Reference Committee in its support of a recommendation that existing inconsistencies in the statutes providing immunity for medical review organizations be corrected and the statutes broadened to include agents and employees of medical review organizations.

**Resolution on Automotive Restraints**

The following resolution was then adopted for the purpose of clarification:

**BE IT RESOLVED, that The Medical Society of Virginia recommends that legislation be enacted requiring automotive restraints for infants and children.**

**Report of Committee on Highway Safety**

The House agreed with the Reference Committee that the report of the Highway Safety Committee be filed as presented.

**Report of Council**

The Committee recommended that those portions of the report having to do with PSRO and employee fitness be filed. The House agreed.

The Committee further recommended, and the House concurred, that the first RESOLVED of the resolution of the Norfolk Academy of Medicine contained in Item 7 of the report of Council be amended to read as follows:

**RESOLVED, that The Medical Society of Virginia go on record as being opposed to the use of persons other than doctors of medicine or osteopathy, or agents under their supervision, to attest to an employee's fitness to return to duty, and be it further ....**

The House adopted the resolution as amended.

**Resolution on Disability Insurance** *(Sponsored by the Norfolk Academy of Medicine)*

Although the Committee had recommended a substitute resolution, the House adopted a motion by Dr. Brown which would refer the matter back to the Insurance Committee for further study.

A committee recommendation that would have the Society's Insurance Committee investigate other types of insurance that carry premiums disproportionate to provided coverage, or that mislead the public as to the scope of protection, was then adopted.

**Resolution on Medicaid Program** *(Sponsored by the Virginia Beach Medical Society)*

The House agreed with the Committee that the last RESOLVED should be amended by deleting the words "endorse a" and substituting instead the words "reaffirms its". Also deleted were the words "the" and "of its member physicians" in the second line of the RESOLVED. Also struck from the last RESOLVED were the words "including those sponsored by Medicare and Medicaid". The following resolution was then adopted as amended:

**WHEREAS, the Virginia Medicaid program is deficient in many respects, and**

**WHEREAS, the required paperwork is unduly burdensome, and**

**WHEREAS, the fee schedule is unrealistic, not having been updated since 1969, be it therefore**

**RESOLVED, that The Medical Society of Virginia give high priority to the activities of its committees to correct the overburden of paperwork and the unrealistic fee schedule of the Medicaid program, and be it further**

**RESOLVED, that The Medical Society of Virginia reaffirms its policy that all citizens of Virginia have access to medical services without discrimination because of race, religion, age, social status, income or ethnic background.**

The report, as a whole, of Reference Committee No. 2 was then adopted as amended.

## Reference Committee No. 3

The Speaker then introduced Dr. William Barney for the purpose of presenting the report of Reference Committee No. 3.

**Reports of Vanguard**

The report of the Vanguard Committee was filed as recommended.

Considered next was the supplemental report of the Vanguard Committee.

There was considerable discussion concerning that item having to do with physician involvement in ap-

propriateness review. It was the decision of the House to refer that item back to the Vanguard Committee for further consideration—particularly with respect to immunity.

The House agreed with the Reference Committee that that portion of the report pertaining to a prescribing role for pharmacists should be amended in such manner as to insert the words "legislative implementation of" after the word "oppose" in the first line. It also agreed that this particular matter should be referred to the Legislative Committee for proper surveillance.

The Vanguard supplemental report in its amended form was then adopted as follows:

**1. The Society should continue to support the enactment of appropriate amendments to the National Heath Planning and Resources Development Act (PL 93-641 and PL 96-79) and the enabling for Professional Standards Review Organizations (PL 92-603) in conjunction with the American Medical Association.**
**2. The Society should seek amendment of the enabling legislation for the National Health Service Corps to include the findings of local medical societies and practitioners in the decision process for designating underserved areas.**
**3. The Society should again support introduction to the Congress of legislation that would eliminate the medical profession from jurisdiction of the Federal Trade Commission.**
**4. The Society should oppose legislative implementation of the April, 1980 resolution of the American Pharmaceutical Association's house of delegates which "supports a prescribing role for pharmacists as the expert on drugs and drug therapy on the health care team."**
**5. The Society should encourage the American Medical Association to devise amendments to HR-7527 (the Stockman-Gephardt Health Care Reform Act of 1980) which might enable the profession to support all or part of its more laudible features.**

**Report of Council**

The Committee voiced its support of that portion of the report having to do wth the National Health Service Corps and recommended that it be filed as presented. The House concurred.

**Presidential Address**

The Committee added its compliments to the many already received by the President on his informative address and commended him and his astuteness. It recommended that those portions of the address found on Page 2 - Lines 1-31, Page 3 - Lines 41-46, and Page 4 - Lines 1-28, be filed. The recommendation was adopted.

**Resolution on Use of Consultants** *(Sponsored by the Richmond Academy of Medicine)*

The Committee, acting in keeping with the wishes of the sponsor recommended that the resolution be withdrawn. The House agreed.

**Resolution on Vanguard Reports** *(Sponsored by the Richmond Academy of Medicine)*

The Committee noted that the sponsor had also requested that this resolution be withdrawn and that it had no objection. The House voted to support the request.

The report, as a whole, of Reference Committee No. 3 was then adopted as amended.

## Reference Committee No. 4

The report of Reference Committee No. 4 was presented by Dr. Reuben D. Knopf.

**Committee Reports**

The following reports were filed as recommended: Ethics, Grievance, Insurance and Membership.

The House voiced pleasure in adopting the recommendation that Dr. Nipe be accorded honorary active membership.

**Report of Committee on Negotiations**

The report of the Committee on Negotiations was then adopted. The report included the following recommendations:

**1. Adoption of the document entitled "Policy Guidelines and Procedures for the Negotiations Committee."**
**2. Development of training programs for Medical Society of Virginia negotiators through the American Medical Association's Department of Negotiations.**
**3. The development of a pool of trained negotiators representing special areas of expertise in which negotiations are apt to occur.**
**4. That the Executive Committee of the Council of The Medical Society of Virginia be authorized to provide guidance to the Negotiations Committee when the full Council of The Medical Society of Virginia is not available for instructions.**
**5. In view of the scope of the negotiation process and the lack of exemption from anti-trust act violations when there is not an employee-employer relationship, the Committee suggests that The Medical Society of Virginia provide liability insurance protection for committee members.**

**Report of Bylaws Committee**

The Reference Committee recommended, and the House concurred, that Section 3 of the Articles of Incorporation be amended by adding the following

sentence after the first sentence of the fourth paragraph:

**Dues for active members who are interns, residents or fellows in approved programs in Virginia may be set at an amount which is less than the dues for other active members.**

Section 3 was further amended by deleting the eighth paragraph and substituting the following:

**Graduate active membership may be granted to any applicant who is a doctor of medicine or osteopathy and who is serving in an internship, residency or fellowship in an approved program in Virginia. Graduate active members shall not pay dues, nor shall they vote or hold office or serve on standing committees, but shall be entitled to all other privileges of membership.**

The House then agreed with the Reference Committee that annual dues for those active members who are interns, residents and fellows should be set at $15.

Also adopted was a Committee recommendation that the Bylaws Committee be requested to consider further amendments to the Articles which would permit interns, residents and fellows, who are in approved programs in other jurisdictions and are residents of Virginia, to become graduate active members of the Society.

The House then turned its attention to Section 4, Article IX of the Bylaws and agreed wth the Reference Committee that it should be ammended by adding the following sentence:

**If a physician's membership in the Society terminates for any reason, he shall not be readmitted to membership until he has provided satisfactory evidence of compliance with the program for the calendar year preceding the date of application for readmission.**

It was further agreed that the first sentence of Section 13 of Article IX of the Bylaws should be amended to read as follows:

**The Vanguard Committee shall consist of ten or more members comprising representatives from each Congressional District, each to serve for a term of three years; provided, however, that appointments may be limited by the President to a term of one year or two years in order to insure an orderly rotation of Committee members.**

Article XI of the Bylaws was then amended by adding a new paragraph which reads as follows:

**Any member whose license to practice medicine in Virginia has been suspended or revoked shall be dropped automatically from the membership rolls.**

**Report of Council**

In keeping with the Committee's recommendation, the following items were filed: 4-H Health Project, Dr. Hotchkiss and Resident Membership. It was pointed out that Council's recommendations on the bylaws were covered during consideration of the Report of the Bylaws Committee.

**Presidential Address**

The Committee commended the President on an excellent address and recommended filing for those portions on Page 1—Lines 1-46, Page 2—Lines 33-48, Page 3—Lines 1-40, Page 4—Lines 29-48, Page 5—Lines 1-48, Page 6—Lines 1-49 and Page 7—Lines 1-8.

The Committee reported that it had heard considerable testimony on the matter of specialty representation in the House and the President's reference to the need of a continuing study. It was the Committee's recommendation that a proposal for specialty representation be prepared by a Committee appointed by the President for presentation to the House at the next annual meeting.

Dr. Keeley then offered the following resolution as a substitute for the Committee's recommendation and the House concurred:

**WHEREAS, it is the prevailing opinion of this House of Delegates that specialty societies be represented in the House of Delegates, and**

**WHEREAS, the exact mechanism is as yet unformed, therefore be it**

**RESOLVED, that the Bylaws Committee present such concrete proposals for consideration by the House at its next session.**

The Committee reported that some concern had been expressed about the proposed new format for the annual meeting. Most of this concern had to do with problems associated with taking an extra day off from practice. The Committee recommended, and the House agreed, that when the new format is implemented, the concerns and response of members should be carefully monitored and changes made if and when appropriate. The recommendation was adopted.

**Speaker's Remarks**

Dr. Wallace was commended for his efforts to shape and conduct the business of the House in keep-

ing with the wishes of the majority. The Committee expressed its appreciation to Dr. Wallace for his outstanding performance as Speaker of the House and recommended that his remarks be filed. The recommendation was adopted.

**Financial Report and Budget**

The Finance Committee was commended on its presentation of a balanced budget for the new fiscal year. The House agreed with the recommendation that the following budget be adopted:

| **Expenses** | **Proposed** |
|---|---|
| Salaries, including Continuing Medical Education & Vanguard | $272,000.00 |
| Printing & Mailing Services—Membership | 5,000.00 |
| Stationery and Supplies | 9,500.00 |
| Office Equipment: Repairs & Replacements | 2,500.00 |
| Building Maintenance & Repairs | 29,000.00 |
| Telephone | 9,500.00 |
| Postage | 7,000.00 |
| Convention Expenses | 13,000.00 |
| Council and Committee Expenses | 9,250.00 |
| Travel Expense: | |
| Delegates to AMA | 15,000.00 |
| Executive Vice President & Staff | 3,000.00 |
| Virginia Medical | 84,000.00 |
| Legal Expense | 65,000.00 |
| Walter Reed Commission | 500.00 |
| Woman's Auxiliary | 1,000.00 |
| Membership Dues (Affiliated Organizations) | 1,100.00 |
| Editor—Virginia Medical | 1,250.00 |
| VaMPAC (Educational Fund) | 35,000.00 |
| Newsletter | 1,500.00 |
| Presidential Expense Allowance | 6,000.00 |
| Presidential Expense Account | 7,500.00 |
| Employee Benefits: | |
| Retirement Fund | 53,000.00 |
| Payroll Taxes | 16,000.00 |
| Blue Cross-Blue Shield | 5,000.00 |
| Legislative Expense | 7,500.00 |
| Continuing Medical Education | 14,000.00 |
| Miscellaneous | 2,500.00 |
| **Special Appropriations** | |
| Virginia Council on Health & Medical Care | $ 8,000.00 |
| AMA-ERF | 1,000.00 |
| Rural Health | 1,200.00 |
| Scholarship—MCV (Administered by The Medical Society of Virginia) | 2,000.00 |
| Scholarship—UVA School of Medicine (Administered by The Medical Society of Virginia) | 2,000.00 |
| Scholarship—Eastern Virginia Medical School (Administered by The Medical Society of Virginia) | 2,000.00 |
| Miscellaneous AMA | 12,000.00 |
| Insurance Premiums | 2,000.00 |
| Vanguard | 55,000.00 |
| Public Relations—including special Projects & Contingency Funds | 37,000.00 |
| Student Medical Society—MCV | 2,398.00 |
| Student Medical Society—UVA | 2,515.00 |
| Computer Operation and Maintenance | 7,500.00 |
| **Total Expenses** | $810,213.00 |

**Report of Executive Vice President**

The report of the Executive Vice President was filed as recommended.

**Resolution on Continuing Medical Education**
*(Sponsored by the Newport News Medical Society)*

The Committee noted that only three members of the Society were not in compliance with the CME requirement. For this reason, it recommended that the resolution not be adopted. The House agreed.

**Resolution on Third-Party Fee Scales** *(Sponsored by the Prince William County Medical Society)*

It was noted by the Committee that the subject matter of this particular resolution was considered at the last annual meeting. Acting on the advice of counsel, the Committee recommended that the resolution not be adopted and that the House reaffirm its position that equitable reimbursement, which does not necessarily mean the same reimbursement, is needed to ensure that rural communities will be able to attract and retain physicians. The Committee's recommendation was adopted.

The report, as a whole, of Reference Committee No. 4 was then adopted as amended.

Dr. McCune received consent of the House to introduce a special resolution on Dr. K. K. Wallace, Jr. The resolution was unanimously adopted as follows:

**WHEREAS, Dr. K. K. Wallace, Jr. has served The Medical Society of Virginia tirelessly and with great personal dedication in various capacities, most recently Speaker of the House of Delegates, and**

**WHEREAS, his active participation as a leader and parliamentarian of this august body in the interest of medicine and his fellow physicians has assuredly affected the current and future well-being of this organization, be it therefore**

**RESOLVED, that this body go on record as recognizing this individual's personal dedication on their behalf, and be it further**

**RESOLVED, that this body and his fellow physicians from the Second District, and particularly Virginia Beach, commend "K.K." on his devotion to organized medicine and the cause of medicine in Virginia.**

Dr. Kesler then introduced the following resolution honoring Dr. Gervas Taylor, and it was adopted unanimously:

**WHEREAS, Dr. Gervas Storrs Taylor, Jr., through his untireless efforts and personal dedication, has contributed significantly to the growth and effectiveness of the 2nd District of The Medical Society of Virginia in general, and the Norfolk Academy of Medicine in particular, and**

**WHEREAS, his personal time spent in establishing meaningful relationships with the members of the General Assembly of this District on behalf of the medical community, cannot fail to be recognized, and**

**WHEREAS, his active participation in the Council of The Medical Society of Virginia in the interest of medicine, and his fellow physicians, has assuredly been felt throughout the State, be it therefore**

**RESOLVED, that this body goes on record as recognizing this personal dedication on their behalf, and be it further**

**RESOLVED, that this body and his fellow physicians in Norfolk, and the 2nd District, commend "Gerbo" for the many inroads made by medicine in his local community and the Commonwealth of Virginia through his devotion to the cause of medicine.**

The attention of the House was then called to the very fine and thorough job done by the local Committee on Arrangements in connection with the annual meeting. The host society was the Newport News Medical Society, and it was complimented on the part it played in making the meeting one of the very best.

There being no further business, the meeting was adjourned, sine die.

Robert I. Howard, Secretary

APPROVED:
**K. K. Wallace, Jr., M.D.**, Speaker

# Minutes of Council

A meeting of the Council of The Medical Society of Virginia was held in Williamsburg at the Conference Center on Thursday, November 6, 1980.

*Members Present:* Dr. George M. Nipe; Dr. Percy Wootton; Dr. Charles E. Davis, Jr.; Dr. H. C. Alexander, III; Dr. K. K. Wallace, Jr.; Dr. William S. Burton; Dr. Gervas S. Taylor, Jr.; Dr. Charles M. Caravati, Jr.; Dr. Anthony J. Munoz; Dr. Glenn B. Updike, Jr.; Dr. William W. S. Butler, III; Dr. Robert C. Green, Jr.; Dr. Harry C. Kuykendall; Dr. John T. Hulvey; and Dr. C. Barrie Cook.

*Others Present:* Dr. Harold L. Williams, 2nd Vice President; Dr. James P. Harnsberger, 3rd Vice President; Dr. Richard L. Fields, Vice-Speaker; Dr. William H. Sipe, Dr. Frederick K. McCune, Dr. James A. Shield, Jr., Dr. James V. Scutero, Dr. Lawrence V. Marshall, Dr. George E. Broman, Dr. Nicholas G. Colletti and Dr. Gerald J. Fisher, Vice-Councilors; Dr. F. Ashton Carmines, Dr. John A. Martin, Dr. Michael A. Puzak and Dr. Carl E. Stark, AMA Delegates; Dr. William J. Hagood, Jr., Dr. Arthur A. Kirk, Dr. W. Leonard Weyl and Dr. Raymond S. Brown, Alternate AMA Delegates; Dr. Robert B. Hunter, President, American Medical Association; Dr. William S. Hotchkiss, Member Board of Trustees of AMA; Dr. K. K. Wallace, Past-President of The Medical Society of Virginia; and Mr. Allen Goolsby, III, Society Attorney.

Following an introduction of guests, Dr. Nipe reminded Council that this meeting would be concerned only with the report of the Finance Committee and consideration of a proposed budget for 1980-81.

Dr. Michael Puzak, chairman of the Finance Committee, reported that the Society had enjoyed another excellent year with reference to its finances.

Although the Society had been confronted with unforeseen legal expenses, it weathered the storm much better than anyone could have anticipated. He went on to point out that Society investments brought in a record interest return.

Dr. Puzak then presented Council with a proposed budget which listed proposed expenditures well below estimated income for the new fiscal year.

There followed an item-by-item break-down, and it was agreed that several amendments were in order. Those funds set aside for salaries were adjusted in such manner as to reflect recommended increases and the monies budgeted for retirement fund premiums were increased an additional $5,000.

Council decided that it could not justify further contributions to a particular research organization, and this item was stricken.

Although Vanguard had requested $85,000, it was decided to cut that amount by $30,000 unless and until a specific need becomes evident.

Considerable concern was expressed over the fact that the presidential expense account is not proving adequate. Increased demands, along with increasing costs, are causing some very definite problems.

Dr. Taylor moved that the Committee on Long-Range Planning be requested to review the matter of presidential expense and make its recommendations known prior to the next annual meeting. His motion was seconded and carried.

A question was raised as to whether the Society was receiving proper recognition from student recipients for its annual contributions to the scholarship funds of all three medical schools. It was brought out that the award procedures apparently vary from school to school. Because of this, a suggestion was made that serious consideration be given to having the various scholarship checks issued from Society headquarters. The deans and/or members of their staffs would, of course, continue to determine the recipients and the amounts to be awarded. It was agreed that this matter should be discussed in more detail during the coming year.

Dr. Munoz then moved that Council approve the budget in its amended form and recommend its adoption by the House of Delegates. His motion was seconded and carried.

There being no further business, the meeting was adjourned.

Robert I. Howard, Secretary

APPROVED:
**George M. Nipe, MD,** President

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# THE AUXILIARY

## Instead of a Gavel, Ruffles and Flourishes

Even as Medical Society of Virginia members convened for the annual meeting in Williamsburg late last year, so, too, gathered members of the MSV Auxiliary, to conduct their own program, and the annual meeting of this energetic group was opened, fittingly, by a rousing presentation of colors by a Williamsburg fife and drum corps. This picture records the processional of the corps into the meeting room as the new Auxiliary president, Mrs. M. Pinson Neal, Jr., Richmond, watched its members march by. Others elected to serve with Mrs. Neal: Mrs. John Hannon, McLean, president elect; Mrs. Gerald Weitzman, Portsmouth, first vice president; Mrs. Rahnat M. Seif, Roanoke, second vice president; Mrs. H. Alan Bigley, Jr., Petersburg, third vice president; Mrs. James R. Brunk, Harrisonburg, treasurer; Mrs. Norman R. Edwards, Newport News, recording secretary; and Mrs. Robert R. Wood, Mechanicsville, corresponding secretary. More pictures of the annual meeting appear on pages 72-73.

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**Donald P. King, M.D.**
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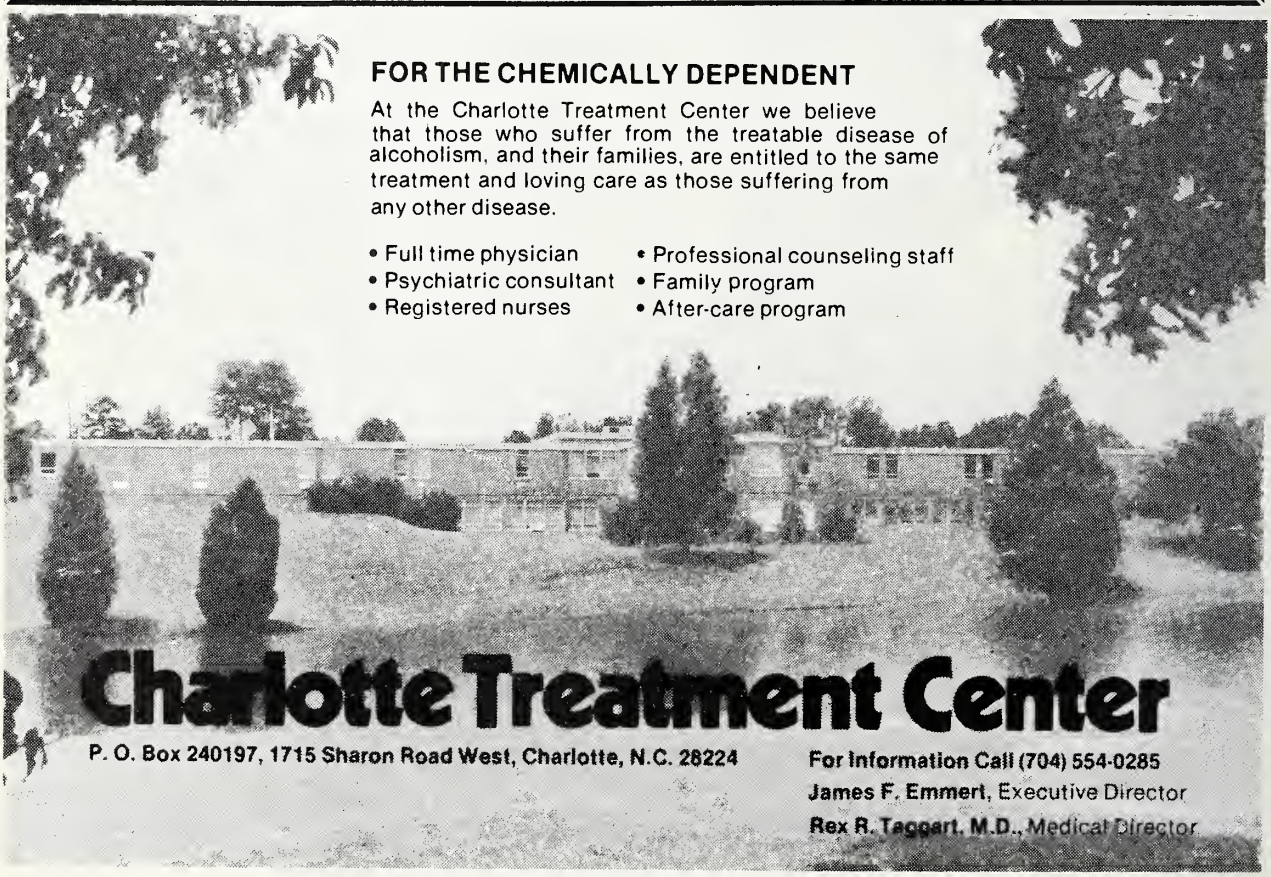
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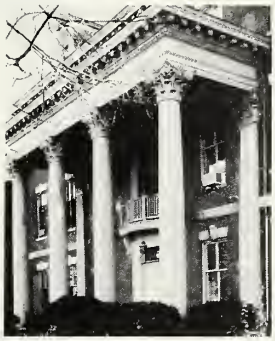

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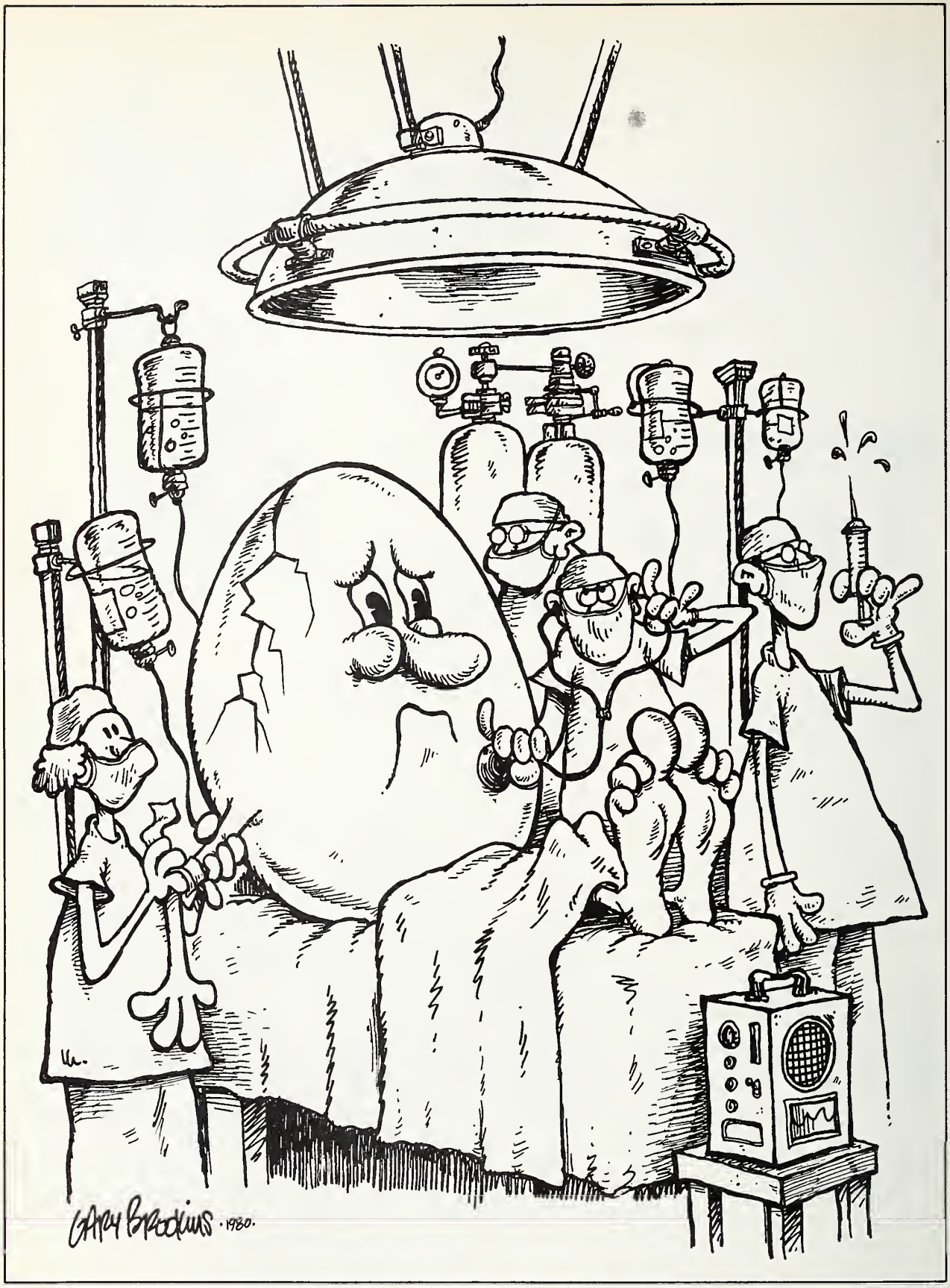
Gary Brookins · 1980 ·

VIRGINIA MEDICAL
EDITORIAL

# Did Humpty Dumpty Have Catastrophe Insurance?

"WHEN I use a word", Humpty Dumpty said, "it means just what I choose it to mean—neither more nor less."[1]

We are grateful that our wondrous and wonderful tongue, though it grows and changes, is not quite as unstable as Humpty Dumpty would have it be.

Some years ago, a publisher who had business on the continent of Europe as well as in England and the United States, commented that on the continent an editor or writer would have in his private office a dictionary. In England and in the United States the editor or writer would always have *several* dictionaries.

These thoughts and comments are tendered as forewords to the observation that the word "insurance" as used in the statement, "Put me in the hospital, doctor.... I have insurance," has changed in meaning through the years.

A dictionary dated 1859[2] and the Oxford English Dictionary[3] stress in their definitions the concept of protection against catastrophic loss and excessive hazards.

More recent dictionaries[4,5] do not even mention this aspect of insurance in their definitions, indicating that the public's present use of the term is correct.

Many, if not most, individuals now are budgeting for their expected future medical needs by paying a premium periodically to an insurance company without even considering that the mechanics of handling these premiums and payments is consuming up to 35% of the premiums.

The concept of self-budgeting-for-expected-expenses insurance (in the old sense of pooling of risks for unexpected catastrophies) seems to have been lost.

Since it is unlikely that the meaning and connotation of the word "insurance" will ever revert to its earlier meaning, we might at least use modifiers and different terms, i.e., catastrophe insurance and medical-budgeting policy. These phrases are awkward and unwieldy, but they do seem to describe more fairly the policies being offered.

RAYMOND S. BROWN

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1. Carroll L: Through the Looking Glass and What Alice Found There.
2. Webster N: An American Dictionary of the English Language. Springfield, Massachusetts, George and Charles Merriam, 1859
3. Compact Edition of the Oxford English Dictionary. New York, Oxford University Press, 1971
4. Webster's New World Dictionary. Cleveland, Ohio, William Collins and World Publishing Company, 1972
5. Webster's New World Dictionary, College Edition. Cleveland, Ohio, World Publishing Company, 1960

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# Col Alto: Impetus for a Country Practice

COL ALTO (c. 1858)

WITH its spacious symmetry and hospitable porch, Buckingham County's "Col Alto" eloquently expresses the needs and values of a rural Virginia family of the mid-1880s. Col. Thomas Moseley Bondurant built Col Alto as a gift for his son, Joseph Alexander Bondurant, and Joseph's wife, the former Emily Morrison. The house was ten years under construction; many of the materials for it originated in Georgia and made the last lap of a laborious journey by way of the James River Canal, which linked Richmond, Buckingham and Lynchburg. Situated on a rolling hill ("col alto" is French and Italian dialect for "high mountain pass"), the house has two floors above a full basement, each level comprised of four rooms and a wide central hall.

Colonel Bondurant was a large land owner, tobacco exporter and legislator. For a daughter, Angelina, and her physician-husband, Dr. William Paxton Hall, the Colonel built another Buckingham County landmark, "Perry Hill",[1] which is still owned by Bondurant-Hall descendants. But Col Alto was sold out of the family when Joseph Bondurant died, late in the 19th century.

In 1946 the Drs. William A. and Margaret A. Pennington, who had met and married when they were students at the Medical College of Virginia, were looking about Virginia for a likely rural practice location. In Buckingham they found Col Alto for sale—and that ended the search. Proud and zealous in their ownership, the Penningtons have brought both house and grounds to a high level of health and beauty. And they built the little house close by, originally for the retirement of Dr. Margaret Pennington's parents but now the home of a daughter and her husband.

Dr. William Pennington's woodworking hobby has been a notable boon in the restoration both of Col Alto itself and of antique furnishings for its interior. And Dr. Margaret Pennington's artistry with pen and ink has produced a significant book[2] of drawings of historical structures and sites all over Buckingham County, including the likeness of Col Alto on this page.

For more about Dr. William Pennington, turn to page 26.

1. AG: Book review. Va Med 106:478–479, 1979
2. Pennington MA, Scott LS: "The Courthouse Burned—." Waynesboro, Charles F. McClung, 1977

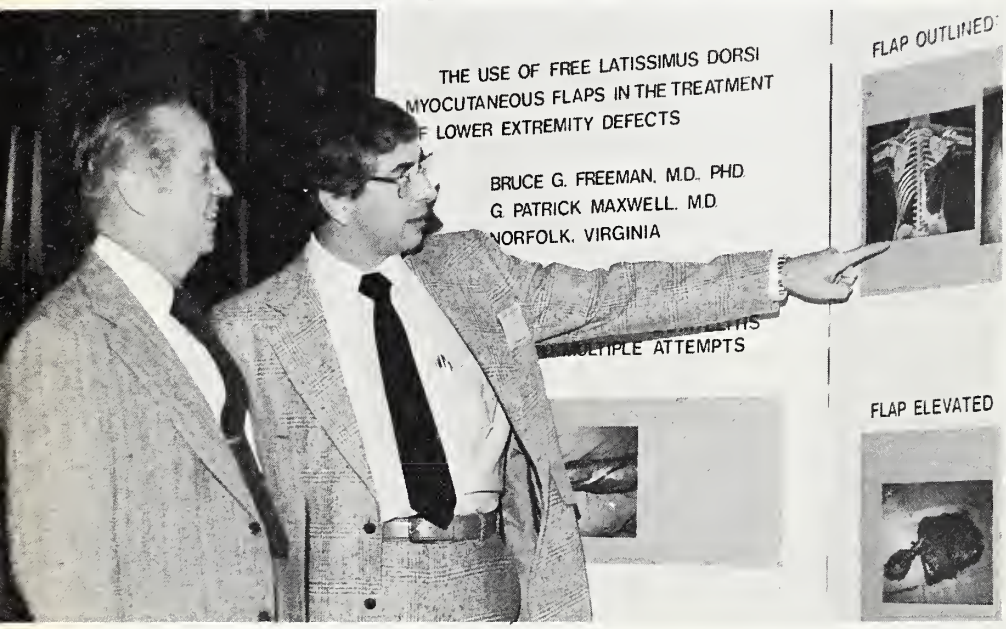
**MORE** pictures of the MSV Annual Meeting in Williamsburg. For other pictures, see the December 1980 issue. And for minutes of the proceedings, turn to page 52.

▶ Dr. George M. Nipe (left), President at the time of the 1980 meeting, congratulates Dr. George W. Vetrovec, Richmond, whose exhibit on coronary artery disease tied for third prize.

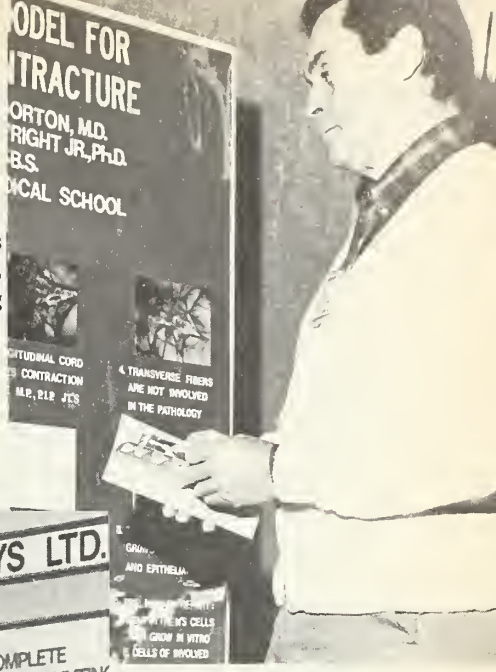
▲ Dr. William C. Gill, Jr., Richmond

▼ Dr. George H. Agate, Richmond (right), with Merck Sharp & Dohme rep Charles Shepard.

▼ Dr. Bruce G. Freeman, Norfolk plastic surgeon (right), explains a point in his exhibit on lower extremity repair to Dr. James S. Kitterman, Norfolk.



▲ Dr. Andrew A. Slemp, Jr., Roanoke (right), with Cindy Williams, Wyeth Laboratories rep.

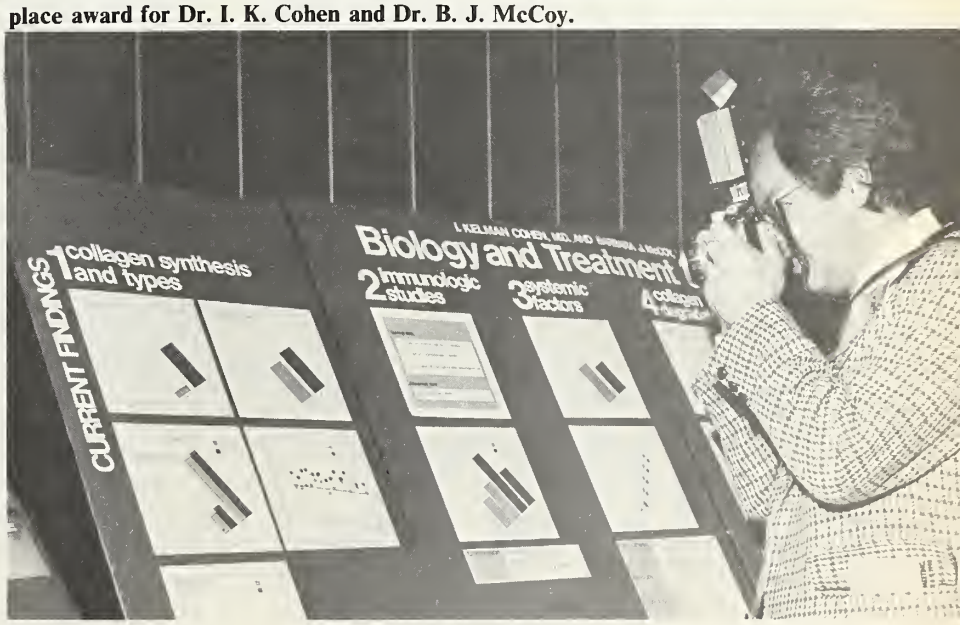



▶ Dr. James Robert Brunk, Harrisonburg

▼ Dr. Marcella F. Fierro, deputy chief medical examiner for Virginia (left), and Dr. Henry L. Gardner, Jr., Franklin County medical examiner.

◀ Dr. George A. Reynolds, Bowling Green (right), with John Fielding, Boots Pharmaceuticals rep.

▼ Dr. Jaime Tisnado, Richmond, photographs the exhibit on keloid that won a third place award for Dr. I. K. Cohen and Dr. B. J. McCoy.



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From the VA MED DNE

## *This Acronym Wins Friends and Influences Doctors*

WITH a fistful of money, the long arm of the US government has bestowed yet another acronym on Virginia medicine, but this time it is one that promises to find favor with physicians. It is Virginia's first Area Health Education Center, or, in the bureaucratic manner, "AHEC", now open for business in five western Tidewater counties—Chesapeake, Suffolk, Franklin, Isle of Wight and Southampton.

Its business is to serve as a communications center, receiving word of medical needs throughout the area, then organizing and deploying responses to meet those needs. Direct and practical responses they are, for AHEC's work force consists of students in the health care professions—medicine, dentistry, nursing, pharmacy and allied specialties. Under the guidance of instructors, they go out to administer the needed help and, in return, receive on-the-scene training.

The schools from which they are drawn are Eastern Virginia Medical School, the Medical College of Virginia, Hampton Institute, Old Dominion University and Norfolk State. Their mentors are practicing professionals of academic rank or school-based faculty. Key contributors to the program are the area's three hospitals and its public health services.

The man in command of the communications center is Dr. Edward G. Haskell, Jr., associate dean for community services at Eastern Virginia Medical School and former director of the AHEC programs based at the University of South Caroiina Medical School. As director of the Tidewater center, he reports to a governing board of 38 citizens who furnish direction and continuing assessment of both educational and patient service aspects of the program. Three Virginia physicians sit on that board: Dr. Aurelius W. Brantley, Franklin; Dr. Carolyn Burwell, Suffolk; and Dr. E. H. Derring, Jr., Chesapeake.

Impetus for all this activity originated with the Eastern Virginia Medical Authority, which negotiated a preliminary planning grant from the Department of Health and Human Services and then the contract nailing down seven years of funding. First-year cost is estimated at $155,000, of which 75% comes from the federal horn of plenty; the remainder is supplied by the participating schools, largely through in-kind services.

This Tidewater AHEC joins 21 other such centers over the country, including one in North Carolina that is considered a model of the genre. Based at the University of North Carolina in Chapel Hill and directed by Dr. Eugene S. Mayer, the North Carolina AHEC came into being in 1972 and made itself valuable so swiftly that in 1974 it was authorized to serve the entire state, with state funds joining federal money to finance the expansion. Its budget for the year past weighed in at $17.7 million from the state, $615,000 from the US. The federal funding period expired late last year,

VIRGINIA MEDICAL

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Editor
**W. Taliaferro Thompson, Jr., MD**
Managing Editor
**Ann Gray**
Business Manager
**Robert I. Howard**

and, as of 1981, the program is completely state-supported.

The North Carolina program vividly illustrates an AHEC component complementary to the patient service/student training effort, and that is continuing education for practicing physicians. Operating out of Chapel Hill is the "Medical School Air Force", as it is known on campus—a fleet of planes that fly shuttle service to communities over the state. A round trip in the morning transports university faculty to a small-town hospital for a day of teaching, then flies doctors from that community back to Chapel Hill for a day of learning. At the close of the day the plane makes another round trip to put everyone back in place.

This air shuttle service and its scheduling, a project of the University of North Carolina Medical Foundation, was flourishing when the AHEC was founded and its incorporation into the new program got it off to a flying start.

## *PSRO Study Okays Hysterectomies*

Every now and then someone raises a hue and cry about physicians performing a lot of unnecessary hysterectomies. One of Virginia's five PSROs investigated that charge and reported that in South Central Virginia at least, it is unfounded. The exoneration came from Dr. Wyatt S. Beazley, III, Richmond, chairman of the Medical Evaluation Committee of the South Central Professional Standards Review Organization. Dr. Lee Weathington II, also of Richmond, is the PSRO's president.

HOUSE OF DELEGATES OF THE MEDICAL SOCIETY OF VIRGINIA
ANNUAL MEETING, NOVEMBER 8, 1980, WILLIAMSBURG

***Suitable for Framing:*** In answer to requests, the Editors have arranged to make available for purchase copies of the panoramic photograph of the 1980 House of Delegates that appeared in the December issue. It will be printed on mat paper, suitable for framing, at 20 inches wide by 9 inches deep, and the price will be $15, including mailing. Deadline for orders is February 27, with delivery early in March. Send your name, address and check to The Picture, VIRGINIA MEDICAL, 4205 Dover Road, Richmond VA 23221.

A mysterious discrepancy was remarked by the Editors, when this photograph was published, between the number of delegates in the picture (213) and the number of names in the accompanying list of those attending (209). Dr. Duane A. Lawrence of Virginia Beach has solved the mystery: He and Dr. Greg J. Warth and Dr. Colin W. Hamilton all appear in the picture, representing the Virginia Beach Medical Society, but their names were not listed. The Editors are delighted that the data now tallies exactly.

The committee reviewed hysterectomy practices in the 15 hospitals of the South Central region, which extends roughly from Richmond to South Boston, and concluded that 99.7% of the hysterectomies studied met the committee's criteria for justifiable surgery. The criteria included three categories: 1. a pathology report indicating the presence of malignant disease, or pre-malignant conditions, or specified non-malignant disorders, or fibroids 4 cm or greater in size; 2. abnormal episodes of bleeding; 3. elective sterilization.

In the course of the review, the committee found a complication rate of 15%, which it considered acceptable, and a mortality rate of one

***Side by Side by Detroit:*** These two golden oldies stirred automotive memories as they sat side by side recently in a parking lot near the University of Virginia Medical Center in Charlottesville. On the left, a 1957 Chevy, owned by Dr. James Q. Miller, professor of neurology and medical director of the UVa comprehensive epilepsy program. On the right, a 1940 Buick "Special", owned by Dr. Frederick B. Westervelt, Jr., professor of internal medicine and head of the UVa renal division. Dr. Miller bought the Chevy in 1963 for $400; it is his transport to and from work and is also used to haul garden supplies and firewood. Dr. Westervelt collects old transport; besides the Buick, he owns a 20-year-old jeep, a 20-year-old tractor, and a 32-year-old horse. Both of the cars shown have most of their original parts, run reliably, and average about 16 miles to the gallon of gas. *University of Virginia Medical Center photo.*

death, that of an elderly cancer patient, among the 585 cases reviewed.

For more on PSROs, see the editorial by Dr. William W. S. Butler, III, on page 138.

## *One Hand Giveth, Other Taketh Away*

Solo practitioners and doctor-partners may now take out Workmen's Compensation coverage if they choose to do so. The law heretofore has extended only to employees, allowing corporate officers to waive coverage if they elect, but legislation passed last year by the Virginia General Assembly permits "sole proprietors and partners" to come under the Workmen's Compensation Act, too.

The doctor who wants the coverage will pay the current premium charge on the first $15,600 of his earned income and will thereupon be entitled to all the benefits the Act allows. In a partnership situation, all partners must be covered if one desires to be covered.

Virginia's legislators have also added a punitive clause to the law requiring all those who employ three or more persons to provide Workmen's Compensation insurance for those employees: If you fail to take out this insurance, the law now says, you must "cease and desist all operations," i.e., you're out of business, and the employees are out of work.

## *Neonate Eye Meds Increased*

Silver nitrate has been joined by three other kinds of medication as the prophylactic treatment for ophthalmia neonatorum in Virginia. Recently passed legislation changed the Code of Virginia to state that any one of these are to be instilled in each eye of the newborn baby as soon as possible after birth: 1) two drops of a 1.0% silver nitrate solution; 2) two drops of a 1.0% tetracycline ophthalmic solution; 3) one-quarter inch or an excessive amount of 1.0% tetracycline ophthalmic ointment; or 4) one-quarter inch or an excessive amount of 0.5% erythromycin ophthalmic ointment.

## *Mr. Moore Regrets*

The man in command of MSV membership, Jim Moore, asks the members' understanding in a problem, to wit, some doctors ask that such corporate designations as "PA", "PC", and "Ltd." follow their names in the membership roster. Mr. Moore regrets, but such suffixes are not admissible under the typographical style for these listings.

## *CME Deadline Near*

Don't forget, all you Medical Society of Virginia members whose last names begin H thru N, your reports of continuing medical education credits earned during 1979-1980 are due March 1, 1981. For your convenience, reply cards went out early in December with the dues statements. (Dues-exempt members in the H-to-N category were sent the reply cards in an independent mailing.) If you haven't already done so, please sign the card and drop it in the mail pronto.

# IT TAKES MORE THAN MONEY TO ACQUIRE 50 MILLION DOLLARS IN REAL ESTATE.

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It takes expertise in investment real estate, it takes a creative approach, it takes people who work quickly, and it takes available funds.

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# LETTERS

## For Foreign Missions, A Diet and Virginia Medical

I read with interest Dr. Michael Moore's article, "Initial Diet for Hyperlipidemia".[1] I am wondering if I might have your permission to reproduce the hyperlipidemic or prophylactic diet to distribute to our missionaries. We have approximately 3,000 missionaries serving in over 90 countries around the world. Hyperlipidemia is, of course, a problem with some of them, and this would be a real help to them.

Let me express my deep appreciation for VIRGINIA MEDICAL. I have found this to be a most interesting and practical magazine. If from time to time you have some extra copies, I would be happy to share these with our 57 physician-missionaries serving overseas.

**Franklin T. Fowler, MD**

Medical Consultant
Foreign Mission Board of the Southern Baptist Convention Box 6597, Richmond VA 23230

1. Moore MJ: Initial diet for hyperlipidemia. Va Med 107:370-371, 1980

**Editors' Note:** Dr. Moore and the Editors were happy to grant Dr. Fowler's request to reproduce the diet for hyperlipidemia. The Editors also will make available to Dr. Fowler copies of each issue for the Convention's missionaries overseas.

## Clarifies Credentials of Nurse Practitioners

Nurse practitioners must be educated and certified according to the rules and regulations of the Joint Board of Nursing and Medicine in order to use the title "nurse practitioner". It is illegal and inappropriate for persons to use the title of nurse practitioner unless they have been so properly educated and certified.

This reminder is supported by the Joint Practice Committee of The Medical Society of Virginia and the Virginia Nurses Association.

Cynia Katsorelos, RN

Richmond Memorial Hospital
Richmond VA 23227



**CYCLAPEN®-W** (cyclacillin)

**Indications**
*Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications:* Treatment of the following infections:
RESPIRATORY TRACT
Tonsillitis and phoryngitis caused by Group A beto-hemolytic streptococci
Bronchitis and pneumonio caused by S. pneumoniae (formerly *D. pneumanioe*)
Otitis medio coused by S. pneumonioe (formerly *D. pneumanioe*) ond *H. influenzoe*
Acute exacerbotion of chronic bronchitis coused by *H. influenzoe**
*Though clinicol improvement has been shown, bocteriologic cures connot be expected in oll patients with chronic respiratory diseose due to *H. influenzoe*.
SKIN AND SKIN STRUCTURES (integumentory) infections coused by Graup A beto-hemolytic streptococci ond staphylococci, nonpenicillinose producers.
URINARY TRACT INFECTIONS coused by *E. coli* ond *P. mirobilis*. (This drug should not be used in ony *E. coli* and *P. mirobilis* infections other thon urinary tract.)
NOTE: Perform cultures ond susceptibility tests initiolly and during treatment to monitor effectiveness of therapy ond susceptibility of bacterio. Theropy moy be instituted prior to results of sensitivity testing.
**Contraindicatians** Controindicoted in individuals with history of on allergic reoction to penicillins.
**Warnings Cyclacillin should anly be prescribed far the indicatians listed herein.**
**Cyclacillin has less in vitra activity than ather drugs af the ampicillin class. Hawever, clinical trials demanstrated it is efficaciaus far recammended indicatians.**
**Seriaus and accasianal fatal hypersensitivity (anaphylactaid) reactians have been reparted in patients an penicillin. Althaugh anaphylaxis is mare frequent fallawing parenteral use, it has accurred in patients an aral penicillins. These reactians are mare apt ta accur in individuals with histary af sensitivity ta multiple allergens. There are reparts af patients with histary af penicillin hypersensitivity reactians wha experienced severe hypersensitivity reactians when treated with a cephalasparin. Befare penicillin therapy, carefully inquire abaut previaus hypersensitivity reactians ta penicillins, cephalasparins and ather allergens. If allergic reactian accurs, discantinue drug and initiate apprapriate therapy. Seriaus anaphylactaid reactians require immediate emergency treatment with epinephrine. Oxygen, I.V. steraids, airway management, including intubatian, shauld alsa be administered as indicated.**
**Precautians** Prolonged use of antibiotics moy promote overgrowth of nonsusceptible orgonisms. If superinfection occurs, toke appropriote meosures.
PREGNANCY: Pregnoncy Categary B. Reproduction studies performed in mice and rots ot doses up to 10 times the human dose reveoled no evidence of impoired fertility or harm to the fetus due to cyclocillin. There ore, however, no odequote and well-controlled studies in pregnant women. Becouse animol reproduction studies ore not olways predictive of humon response, use this drug during pregnancy only if cleorly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in humon milk. Becouse mony drugs are, exercise coution when cyclocillin is given to o nursing womon.
**Adverse Reactions** Orol cyclocillin is generolly well toleroted. As with other penicillins, untoward sensitivity reactions ore likely, porticularly in those who previously demonstrated penicillin hypersensitivity or with history of ollergy, osthmo, hoy fever, or urticario. Adverse reoctions reported with cyclacillin: diorrheo (in approximotely 1 out of 20 potients treoted), nouseo and vomiting (in opproximotely 1 in 50), ond skin rosh (in opproximotely 1 in 60). Isolated instonces of heodoche, dizziness, obdominol pain, voginitis, ond urticorio have been reported. (See WARNINGS) Other less frequent odverse reoctions which may occur ond ore reported with other penicillins are anemio, thrombocytopenio, thrombocytopenic purpura, leukopenia, neutropenio ond eosinophilio. These reoctions are usuolly reversible on discontinuotion of therapy.
As with other semisynthetic penicillins, SGOT elevations hove been reported.
As with ontibiotic therapy generolly, continue treotment ot leost 48 to 72 hours ofter patient becomes osymptomotic or until bocterial eradicotion is evidenced. In Group A beta-hemolytic streptacoccol infections, at leost 10 doys' treatment is recommended to guard ogoinst risk of rheumotic fever or glomerulonephritis. In chronic urinory troct infection, frequent bocteriologic ond clinicol opproisol is necessory during theropy ond possibly for severol months ofter. Persistent infection may require treotment for several weeks.
Cyclacillin is not indicoted in children under 2 months of oge.
*Potients with Renal Failure* Cyclocillin may be sofely administered to patients with reduced renol function. Due to prolonged serum holf-life, patients with vorious degrees of renal impoirment may require chonge in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
**Dosage** (Give in equally spoced doses)

| INFECTION | ADULTS | CHILDREN* |
|---|---|---|
| *Respiratary Troct* | | |
| Tonsillitis & Pharyngitis | 250 mg q.i.d. | body weight < 20 kg (44 lbs) 125 mg q.i.d.<br>body weight > 20 kg (44 lbs) 250 mg q.i.d. |
| Bronchitis ond Pneumonia | | |
| Mild or Moderote Infections | 250 mg q.i.d. | 50 mg/kg/doy q.i.d. |
| Chronic Infections | 500 mg q.i.d. | 100 mg/kg/doy q.i.d. |
| *Otitis Media* | 250 mg to 500 mg q.i.d.† | 50 to 100 mg/kg/doy† |
| *Skin & Skin Structures* | 250 mg to 500 mg q.i.d.† | 50 to 100 mg/kg/doy† |
| *Urinory Troct* | 500 mg q.i.d. | 100 mg/kg/doy |

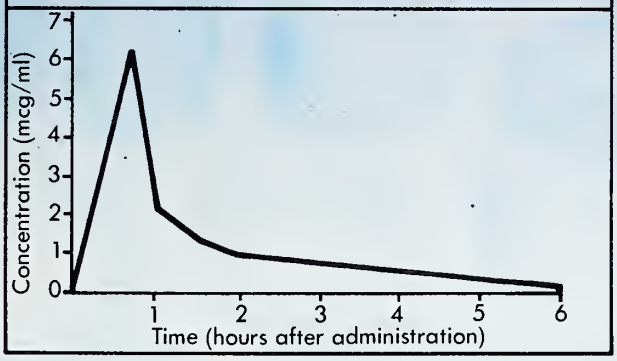
*Dosage should not result in o dose higher thon thot for odults.
†depending on severity

Wyeth Laboratories
Philadelphia, Pa 19101

# Half the dose is absorbed in 9 minutes!

**compared to 32 minutes for ampicillin.***

**Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose**




- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on $T^{\circ}$ ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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**Fewer episodes of diarrhea and rash than with ampicillin in studies to date.**

**Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†**

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

# CYCLAPEN®-W

(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

**more than just spectrum**

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# FISHING

for favorable votes, eleven Medical Society of Virginia members who live in the 3rd Congressional District lured their legislators to a feed at a Richmond seafood restaurant late last year. Leader of the lobby was Dr. Charles M. Caravati, Jr., the district's MSV councilor, who was casting toward the 1981 session of the General Assembly. After the seafood platters were stowed away, the Society's legal counsel hooked into a resume of pertinent bills pending and explained the MSV positions on them, pro or con. Did the legislators take the bait? Only the voting record will tell.

Similar fishing parties in all of Virginia's congressional districts have been part of The Medical Society of Virginia's political activity since 1973, with MSV councilors captaining the outings. They always net good catches; the dinner pictured here, for instance, attracted 12 of the district's 14 delegates and senators, although not all appear in these pictures. And these doctors who are not in the pictures were also there: Dr. Lindley T. Smith, Dr. J. Latane Ware, Dr. Ronald K. Davis, and Dr. Leroy K. Smith.

▲ Dr. Percy Wootton, Dr. Wyatt S. Beazley, III, Sen. E. E. Willey.

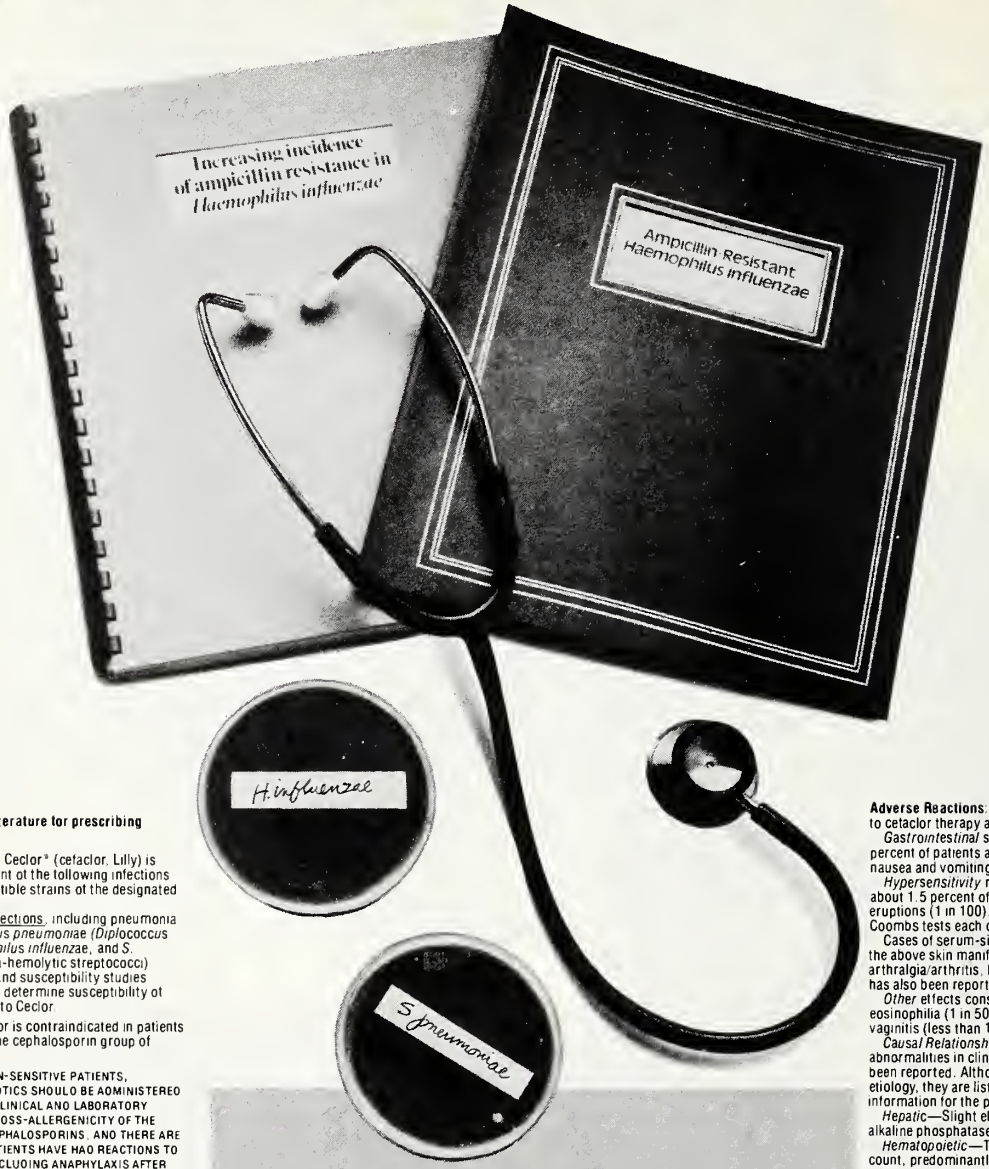
▲ Dr. Charles M. Caravati, Jr., left, and Del. Ralph L. Axselle, Jr. In the doorway at rear, Dr. Emerson D. Farley, Jr.

▲ Dr. Custis L. Coleman, left, and Sen. William F. Parkerson, Jr.

▲ Del. Franklin P. Hall, left, and Dr. Duncan S. Owen, Jr.

▲ Del. D. Wayne O'Bryan, left, and Dr. Edward D. Martirosian.

# An added complication... in the treatment of bacterial bronchitis*


Increasing incidence of ampicillin resistance in Haemophilus influenzae
Ampicillin Resistant Haemophilus influenzae
H. influenzae
S. pneumoniae

**Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.**[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

# Ceclor®
## cefaclor

Pulvules®, 250 and 500 mg

**Brief Summary.**
**Consult the package literature for prescribing information.**

**Indications and Usage**: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

**Contraindication:** Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

**Warnings:** IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

**Precautions:** If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

*Usage in Pregnancy*—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

*Usage in Infancy*—Safety of this product for use in infants less than one month of age has not been established.

**Adverse Reactions**: Adverse effects considered related to cefaclor therapy are uncommon and are listed below:

*Gastrointestinal* symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) and nausea and vomiting (1 in 90).

*Hypersensitivity* reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occur in less than 1 in 200 patients.

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxis has also been reported.

*Other* effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

*Causal Relationship Uncertain*—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

*Hepatic*—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

*Hematopoietic*—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

*Renal*—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [1030BOR]

* Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

*Note:* Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

**References**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*Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.*

Lilly

**Eli Lilly Industries, Inc.**
Carolina, Puerto Rico 00630

100061

# THE AUXILIARY

## In Hampton, Friends Win a Cardiac Campaign

THANKS to the Hampton Medical Society Auxiliary and friends, two splendid new rescue vehicles now speed to the aid of cardiac victims in the city of Hampton. The tab was $68,000 each, and the campaign for funds to buy them was led by Mrs. William M. Goldsmith, chairman, and Mrs. Hedley N. Mendez, III, vice chariman, who are shown below with one of the mobile prizes. Mrs. Mendez is now president of the Hampton Auxiliary, Mrs. Goldsmith president elect.

Their friends in the endeavor were myriad other Hampton organizations who were persuaded to share a rare demonstration of community cooperation. No less than 100 representatives from as many groups sat on the fund-raising committee and set a host of volunteers in motion, knocking on doors, writing letters, making speeches, promoting media exposure. It took two years, but they not only finally crossed the goal but kicked some extra points, for at last count a whopping $130,455 had come in. The extra money permitted additional gifts: two ambulances for Hampton's rescue squads and a maintenance fund to keep all the new transport rolling.

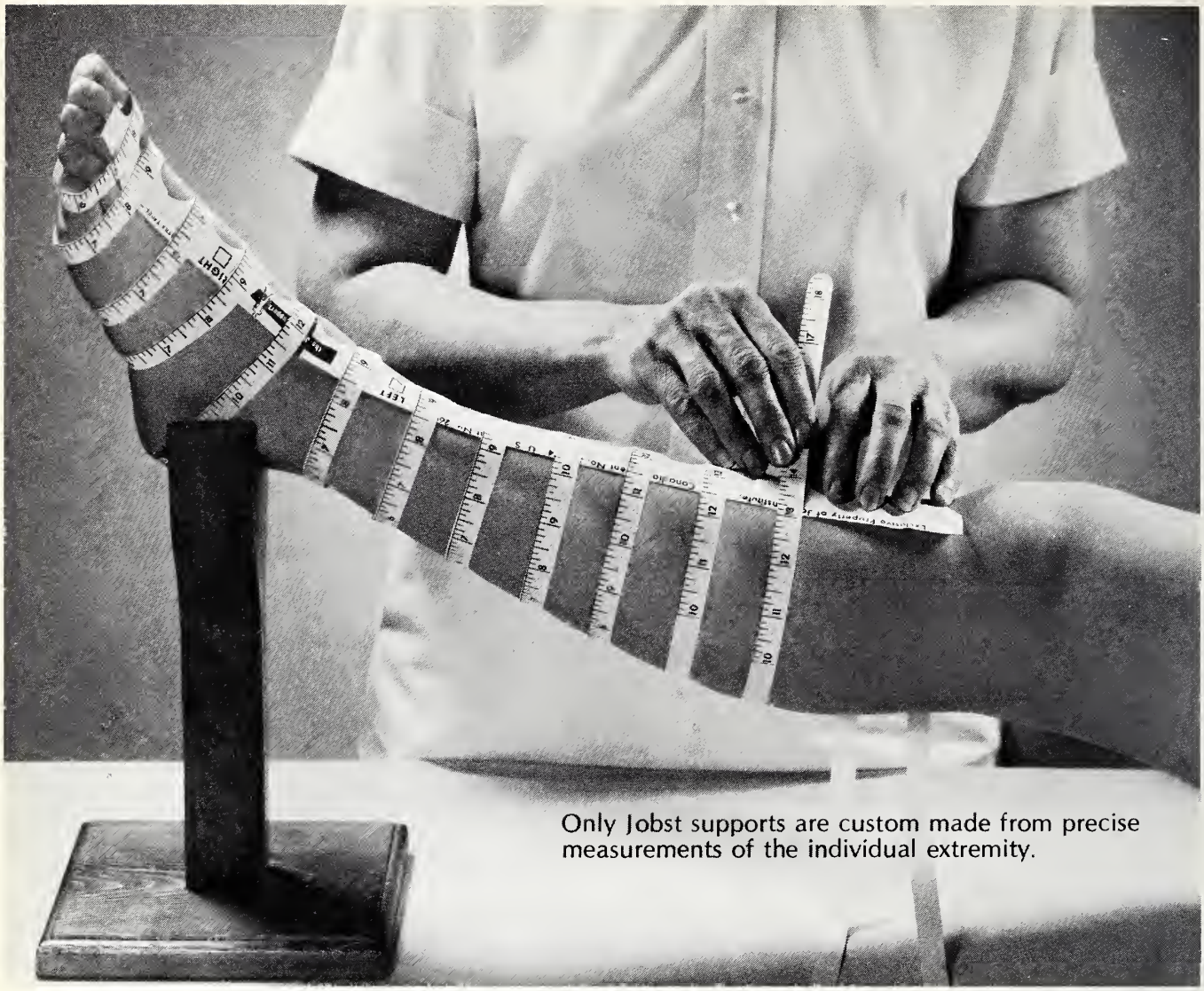
Ready for action within the new vehicles are all the latest life-saving devices, including 2-way data and voice systems enabling an emergency room doctor to direct the rescue effort. And, continuing the spirit of cooperation, the emergency physicians of Hampton General Hospital, one of them Mrs. Mendez' husband, worked with the Hampton Fire Department to train 43 cardiac emergency medical technicians, who now keep the vehicles on call 24 hours a day, seven days a week. Mrs. Goldsmith's husband, a family practitioner who suffered for seven years from heart disease, died late in 1979, and her chairmanship of the project became for her a memorial to him.

"Life-saves by emergency cardiac services in Virginia have contributed significantly to the reduction of deaths from heart disease."[1] So said an editorial in a recent issue of VIRGINIA MEDICAL. Many lives will be saved in Hampton with these cardiac units, and those who live will owe a lot to the Hampton Auxiliary.

A. G.

1. Crampton R: Prehospital emergency cardiac care in Virginia: five years of progress. Va Med 107:312-314, 1980

**Foes of cardiac arrest: Mrs. Goldsmith (left), Mrs. Mendez and rescue vehicle.**




# Jobst®
# Venous Pressure Gradient® Supports

These measured, custom-made therapeutic elastic supports have carried the Jobst name to the four corners of the world. Prescription only, the supports can be engineered with counterpressures of 25, 30, 40 or 50 mm.Hg at the ankle, decreasing proximally along the venous pressure gradient. They are available in knee-length, full-leg, waist-height and lymphedema sleeve styles. The waist-height Jobst Pregnancy Leotard deserves special mention because each one is custom made with an expandable panel according to the patient's own measurements.

**Contact your local Jobst Service Center for complete details.**

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Purepac became the largest generic drug manufacturing facility in the United States by providing high quality generic pharmaceuticals at the lowest possible cost. We know that to be on top tomorrow, we've got to stay a few steps ahead today. Here are some of the steps we've already taken:

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It took Purepac 50 years to achieve this leadership position. And we're determined to provide you with even more quality products and dedicated services in the next 50 years.

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# MEETINGS ABOUT MEDICINE

**February 27-March 1**
**Annual Meeting, Virginia Chapter, American Academy of Pediatrics, and the Virginia Pediatric Society,** Conference Center, *Williamsburg.* Joseph R. Zanga, MD, Box 514, MCV Station, Richmond VA 23298, (804) 786-0769.

**February 28-March 6**
**Annual Postgraduate Course in Internal Medicine** (University of Miami), Sheraton Bal Harbor Hotel, *Miami Beach.* Dr. Jose S. Bocles, Dept. of Medicine, R-760, University of Miami, PO Box 016760, Miami FL 33101.

**March 1-5**
**17th Annual Radiology Postgraduate Course: Chest Radiology** (Medical College of Virginia), Williamsburg Conference Center, *Williamsburg.* 20 AMA Cat. 1 credits. Fee: $300 for physicians, $150 for residents. MCV Dept. of Continuing Medical Education, (804) 786-0496.

**March 2-6**
**70th Annual Meeting of the United States-Canadian Division, International Academy of Pathology,** Palmer House, *Chicago.* Dr. Nathan Kaufman, (404) 724-2973.

**March 11-14**
**Internal Medicine-1981** (University of North Carolina), *Chapel Hill.* 25 hrs. Cat. 1 credit. Office of Continuing Education, 231 MacNider Bldg., 202 H, Chapel Hill NC 27514.

**March 14**
**Immunology-Allergy Review** (East Tennessee State University) *Johnson City, Tennessee.* Fee: $60. Shirley Bogart, (615) 928-6426, Ext. 204.

**March 16-20**
**Basic Practicum in Abdominal and Obstetrical Ultrasound for the Novice Ultrasonographer** (Johns Hopkins Medical Institutions), *Baltimore.* Fee: $400. Joan Batt, Dept. of Radiology, Johns Hopkins Hospital, Baltimore MD 21205, (301) 955-8450.

**March 19-20**
**32nd Annual Postgraduate Day of the Roanoke Memorial Hospitals** (University of Virginia), *Roanoke.* William H. McAfee, EdD, Roanoke Memorial Hospital, Roanoke VA 24033.

**March 21-28**
**Ultrasound at Vail: 2nd Annual Seminar,** the Lodge, *Vail, Colorado.* Michael L. Johnson, MD, Box 6093, Denver CO 80206.

**March 22-April 3**
**22nd Post-Graduate Institute in Clinical Cytopathology** (Johns Hopkins University), *Baltimore.* 125 hrs. Cat. 1 credit. John K. Frost, MD, 610 Pathology Bldg., Johns Hopkins Hospital, Baltimore MD 21205, (301) 955-3520.

**March 23-27**
**Electrocardiographic Interpretation of Complex Arrhythmias** (Indiana University and the American College of Cardiology), *Bethesda.* Cat. 1 credit. Registrar, ACC, 9111 Old Georgetown Rd., Bethesda MD 20014.

**March 27-29**
**American Medical Association's Regional Continuing Education Meeting**—on neurology, acid base, gastroenterology, lung disease, orthopedics, gynecology, allergy, diabetes, electrocardiography, infectious diseases, drugs and hypertension (American Medical Association, Eastern Virginia Medical School, Medical College of Virginia, University of Virginia, Medical Society of Virginia), *Williamsburg.* AMA Dept. of Meeting Services, 535 N. Dearborn St., Chicago IL 60610, (312) 751-6503.

**March 28**
**1st Annual Seminar of Cancer Researchers in Virginia** (American Cancer Society, Virginia Division; Tidewater Regional Cancer Network; Eastern Virginia Medical School), *Norfolk.* James J. Starling, PhD, EVMS, 700 Olney Road, Norfolk VA 23501, (804) 446-5656.

**March 30-31**
**Medical Aspects of Sports Symposium: A Good Sports Medicine Program for Our Schools** (University of Kentucky), Hyatt Regency Hotel, *Lexington, Kentucky.* Frank R. Lemon, MD, University of Kentucky, Lexington KY 40536, (606) 233-5161.

**April 2-3**
**8th Annual Symposium on Recent Advances and Common Problems in Pediatrics** (Children's Hospital National Medical Center, George Washington University, American Academy of Pediatrics), *Washington, DC.* 11½ hrs. Cat. 1

credit. Susan Weiss, Director of Convention Services, Children's Hospital National Medical Center, 111 Michigan Ave. NW, Washington DC 20010, (202) 745-3000.

**April 3-4**
**Advances in Hematology** (University of Maryland), *Baltimore.* Program of Continuing Education, University of Maryland, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**April 3-5**
**Clinical Diagnosis and Management of Corneal and External Disease Problems** (Medical College of Virginia), *Williamsburg.* 15 hrs. Cat. 1 credit. Dept. of Continuing Medical Education, MCV, Richmond VA 23298, (804) 786-0494.

**April 4-8**
**37th Annual Congress of the American College of Allergists,** *Washington, DC.* Hour-for-hour Cat. 1 credit. Shirley Schoenberger, American College of Allergists, 2141 14 St., Boulder CO 80302, (303) 447-8111.

**April 4-5**
**Annual Meeting of the Neuropsychiatric Society of Virginia,** Cavalier Hotel, *Virginia Beach.* Mrs. Ann Boutwell, PO Box 10387, Raleigh NC 27605.

**April 8-12**
**Mending Hearts—Cardiac Therapy for the 1980s** (Boston University Medical Center), *Hilton Head, South Carolina.* Cat. 1 credit. Dept. of Continuing Medical Education, Boston University Medical Center, 80 E. Concord St., Boston MA 02118.

**April 10-11**
**Endocrinology for the Practicing Physician** (University of Kentucky), *Lexington.* Cat. 1 credit. Frank R. Lemon, MD, Albert B. Chandler Medical Center, Dept. of Continuing Education, Lexington KY 40536, (606) 233-5161.

**April 20-24**
**Advanced Practicum in Ultrasound** (Johns Hopkins University), *Baltimore.* Cat. 1 credit. Fee: $400. Janet Hardy, Office of Continuing Education, 720 Rutland Ave., Baltimore MD 21205.

**April 21-24**
**Clinical Advances in Pulmonary Disease** (University of Pennsylvania), *Philadelphia.* Cat. 1 credit. Fee: variable, $170-$300. Alfred P. Fishman, MD, University of Pennsylvania.

**April 22**
**12th Annual Symposium on Medicine and Religion: "Religious Ideation in Psychiatric Diagnosis"** (Portsmouth Naval Hospital and The Medical Society of Virginia), Naval Regional Medical Center, *Portsmouth.* Mrs. Peggy Buchanan, (804) 398-5550.

**April 22-24**
**9th Annual Georgetown Hand Symposium,** *Washington, DC.* Dr. Norman J. Cowen, 2430 Pennsylvania Ave., NW, Suite 105, Washington DC 20037, (202) 829-1000.

**April 24-25**
**20th Annual Swineford Allergy Conference** (University of Virginia), *Charlottesville.* Cat. 1 credit. CME Program Box 368, University of Virginia, Charlottesville VA 22908, (804) 924-5318.

**April 24-25**
**Gynecologic Endocrinology, Infertility, Hirsutism and Menstrual Abnormalities** (East Tennessee State University), *Johnson City, Tennessee.* 7 credits. Fee: $60. Shirley Bogart, CME Program Coordinator, (615) 928-6426, ext. 204.

**April 24-26**
**"Pediatric Springfest": Annual Postgraduate Conference and Sutton Day Lectures** (Department of Pediatrics, Medical College of Virginia), Williamsburg Hilton Conference Center, *Williamsburg.* Dawn G. Mueller, MD, Box 276, MCV Station, Richmond VA 23298.

**April 24-26**
**Association of University Anesthetists** (University of Virginia), *Charlottesville.* Cat. 1 credit. See April 24-25 entry.


**INTERNAL MEDICINE**
**ADVANCES AND REVIEW**
**MARCH 30 — APRIL 1, 1981**

**Presented By:**
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**Location:**
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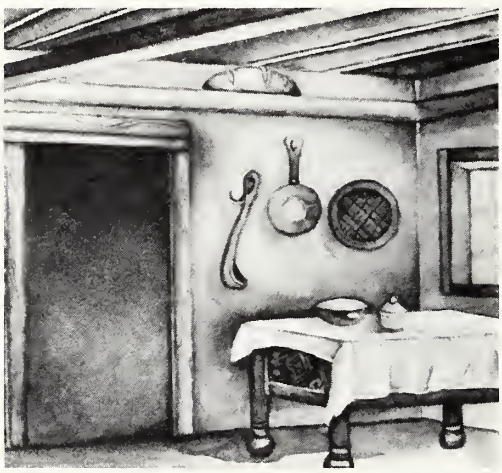
# Yesterday's Folk Remedy:

## A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]

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- Tegopen has been reported active against 96% of *Staphylococcus aureus*.[2]
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- 88% of *S aureus* has been reported resistant to penicillins G and V.‡[2]
- Staph resistance to erythromycin may develop during a course of therapy.[3]

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# Tegopen® (cloxacillin sodium) Today's Penicillin for Today's Physician

1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.

**See brief summary of prescribing information on an adjoining page.**

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

‡Not all isolates may have been tested using both discs.

# Tegopen®
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For complete information, consult Official Package Circular (12) 9/11/75

**INDICATIONS:**
Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)
Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

**IMPORTANT NOTE**
When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.
Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.
Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.
Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

**CONTRAINDICATIONS:**
A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

**WARNING:**
Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.
There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.
Safety for use in pregnancy has not been established.

**PRECAUTIONS:**
The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.
As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

**ADVERSE REACTIONS:**
Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

**USUAL DOSAGE:**
Adults: 250 mg. q.6h.
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The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma, may be used in patients with open angle glaucoma who are receiving appropriate therapy.
**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.
***Usage in Pregnancy*: Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.

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VIRGINIA MEDICAL
FEBRUARY 1981

# Pulmonary Embolism: A Systematic Clinical Approach

James A. L. Mathers, Jr., MD, *Richmond, Virginia*

The author illuminates the difficulties in diagnosing pulmonary thromboembolic disease by describing its signs and symptoms and mapping a definitive course of diagnostic studies, pinpointing the clues to look for in each of them.

THE DIAGNOSTIC APPROACH to pulmonary thromboembolic disease remains a major problem for most physicians. Its clinical features are nonspecific and routine laboratory studies are not helpful. To establish its presence or absence requires invasive laboratory tests that are expensive, sometimes risky, and are not universally available.

It is estimated that there are about 750,000 cases of pulmonary embolism per year with about 150,000 fatalities. Establishing an early diagnosis and instituting therapy is of crucial importance, because appropriate therapy can reduce the mortality rate from about 30% to 8%.[1]

Much of the difficulty in developing a systematic approach to the diagnosis has been created by the conflicting data and opinions that have appeared in the medical literature. Also, when reviewing this material, one must be aware that a copious amount of literature was generated prior to the availability of a method to document the presence or absence of emboli in the living patient. Pulmonary arteriography, the only test that is diagnostic for the presence of emboli in the pulmonary circulation, was first described in 1949 but was not applied in a systematic fashion until 1967[2]. Literature generated prior to this time and some generated since has been based on clinical impression or post-mortem studies and may be selective and misleading.

The first major prospective study of the clinical aspects of pulmonary embolic disease was published in 1970[3]. It is of particular interest that in this extensive multi-center study, roughly 50% of patients who were strongly believed to have pulmonary emboli on clinical grounds had no emboli present on pulmonary arteriograms. On the other hand, information from large autopsy series indicates that only 50% of patients with clinically significant pulmonary emboli, that is emboli sufficient to cause or contribute to death, were suspected of having them pre-mortem.[4]

Clearly, the clinician needs both a heightened awareness and a systematic approach to this problem. The purpose of this paper is to review the changes in our approach to the diagnosis of pulmonary embolic disease that have occurred since pul-

From the Department of Medicine, Pulmonary Division, Medical College of Virginia/Virginia Commonwealth University.

Address correspondence to Dr. Mathers at Box 50, MCV Station, Richmond VA 23298.

Submitted 8-13-80.

monary arteriography has been used to establish the diagnosis in the living patient.

Pulmonary embolism is a disease of the hospitalized population who have such predisposing factors as recent surgery, trauma, malignancy, peripheral vascular disease, protracted left or right ventricular failure, diabetes, and obesity. When the embolism occurs, the great majority of patients will develop certain symptoms and signs. The most common symptoms are dyspnea, apprehension, and cough, while tachypnea and tachycardia are the most frequent physical findings. A slight fever may occur in almost one-half of the cases.

The sudden appearance of these findings in the population at risk prompts the physician to order basic laboratory studies, including complete blood count, sputum examination, electrocardiogram, chest roentgenogram, and often an arterial blood gas. The most common electrocardiographic abnormality is non-specific ST-T waves changes. Signs of right ventricular strain are distinctly infrequent, occurring only in the presence of massive embolic obstruction of the pulmonary circulation. An arterial oxygen tension exceeding 80mmHg has been believed to be useful in ruling out pulmonary embolic disease. Closer examination in the Urokinase Pulmonary Embolism Trial revealed that as many as 11% of patients with documented embolic disease have arterial oxygen tension in excess of this value[5].

Although it has often been stated that the chest radiograph is usually normal in the presence of pulmonary embolic disease, a number of studies published since 1970 would lead to a different conclusion[3,6–8] (Table 1). Specific radiographic abnormalities, including pleural effusions, pulmonary infiltrates, atelectasis, elevated hemidiaphragm and focal oligemia, are common with pulmonary emboli. Pleural effusion, either as an isolated finding or in combination with other abnormalities, is quite common. While unilateral roentgenographic abnormalities are of concern in the patient at risk, the fresh appearance of bilateral abnormalities is strongly suggestive of embolic disease.

The perfusion lung scan is a readily available technique for investigating the integrity of the pulmonary circulation. While scans cannot be diagnostic, they may be classified into high probability, low probability, or indeterminate categories. The high-probability lung scan is one in which two or more perfusion defects, segmental or larger, are present. A single defect affecting even an entire hemithorax cannot be considered in the high-probability category. Preexisting lung disease that has distorted the pulmonary circulation may result in an indeterminate scan.

The pulmonary arteriogram is the only truly diagnostic laboratory investigation. Filling defects in the pulmonary circulation or the abrupt cutoff of segmental vasculature is diagnostic of pulmonary emboli.

The relationship between the pattern obtained on perfusion lung scan and the findings on pulmonary arteriogram has been studied by two groups. The first by Poulose et al[9] included 60 patients. The more recent, that of Moses et al[7], included 104 patients. The former authors classified lung scans into high probability, equivocal, low probability, and normal; and their arteriograms into positive, nonspecific, and normal. The latter authors simplified the classification to scans of high and low probability and arteriograms that were either positive or negative. A comparison of the results of these studies may be found in Table 2. These groups agree that a high-probability lung scan correlates well with a positive arteriogram. False-positive scans occur in 10-18% of cases. When the lung scan was normal, one patient was found to have a minor angiographic abnormality. The low-probability scan had a false-negative rate of 15-30%. While there is a general correlation between

**Table 1. Chest X-ray Abnormalities in Documented Pulmonary Embolism.**

| FINDING | U.P.E.T. 1970 160 Pts. Dx by Angio | Szucs et al 1971 50 Pts. Dx by Angio | Moses et al 1974 45 Pts. Dx by Angio | Bynum & Wilson 1978 155 Pts. Dx {Angio 70 / Hi-Prob. Scan 85 |
|---|---|---|---|---|
| Parenchymal Density | 41% | 50% | 54% | 13% |
| Atelectasis | 20% | | 27% | 6% |
| Pleural Effusion | 28% | 34% | 51% | 18% |
| Effusion and Consolidation | | | | 24% |
| Effusion and Atelectasis | | | | 3% |
| Consolidation and Atelectasis | | | | 2% |
| All Three | | | | 6% |
| Two or More | | | 44% | |
| Elevated Hemidiaphragm | | 26% | 17% | |
| Focal Oligemia | 15% | | | |
| Normal Chest X-ray | Rare | 28% | 7% | 12% |

these two tests, it is apparent that the lung scan cannot replace the arteriogram as a definitive study.

The need to combine the results of diagnostic studies to better identify patients who may require a pulmonary arteriogram was recognized by Moses and his group. They compared the findings on chest roentgenogram and lung scan (Table 3) to the findings on pulmonary arteriography and concluded that angiography is required in all patients with radiologic evidence of cardiomegaly or left ventricular failure, since the perfusion lung scan was misleading in these patients. In individuals with no roentgenographic signs of pulmonary emboli and with normal or low-probability perfusion lung scans, angiogram is unlikely to be of further help. When two or more abnormalities were observed on the chest roentgenogram and the lung scan was classified as high-probability, all of the 17 individuals in this category (100%) had positive arteriograms. This combination thus establishes the diagnosis, and angiogram is not required for further documentation.

Arteriography is diagnostic when filling defects are observed in the main pulmonary circulation. Rapid resolution of these arteriographic abnormalities may occur, however, particularly when fresh clots break up and migrate into the smaller pulmonary arteries. Residual small filling defects may be noted in the pulmonary circulation, but many arteriographers are understandably reluctant to interpret these findings as diagnostic of pulmonary emboli.

It is important to establish the diagnosis of pulmonary embolic disease within 24-48 hours after the onset of symptoms, not so much to treat the embolus that has occurred, but in order to prevent further embolization. With this in mind, it may be worthwhile to investigate the lower extremities, where the great majority of emboli arise, as an alternative to pulmonary arteriography. At the current time, venography remains the standard for establishing the presence or absence of deep venous thrombosis. The demonstration of filling defects in the ileofemoral system warrants immediate therapeutic intervention regardless of the findings on pulmonary arteriography. Should the deep veins and the inferior vena cava be free of clots, a more conservative approach may be taken. This is particularly true if there has been clinical improvement since the presumed embolic event, and any predisposing factors are resolving.

A systematic approach to the diagnosis of pulmonary embolic disease can be followed as outlined in Table 4. This type of scheme may help identify those individuals in whom pulmonary arteriography may or may not be needed. Basic to the scheme is the identification of those patients who will be on short-term (less than 6 months) vs. long-term anticoagulation as well as those patients who are at risk for the complications associated with anticoagulant therapy. Short-term anticoagulation is used when the factors predisposing to pulmonary embolic disease may be brought under control. This includes individuals with uneventful surgery, recent trauma, or a limited period of immobility. Long-term anticoagulation may be required in patients with such problems as peripheral vascular insufficiency, persistent congestive heart failure, a lengthy period of immobility, or morbid obesity. These individuals as well as others with relative or absolute contraindications to anticoagulant therapy may be candidates for surgical intervention such as the placement of a filter in the inferior vena cava. Pulmonary arteriography may be warranted to confirm the diagnosis in these individuals prior to embarking on lengthy or invasive therapy.

A systematic approach such as outlined can significantly reduce the expense and the risk of clinical investigation as well as speed the institution of appropriate therapy.

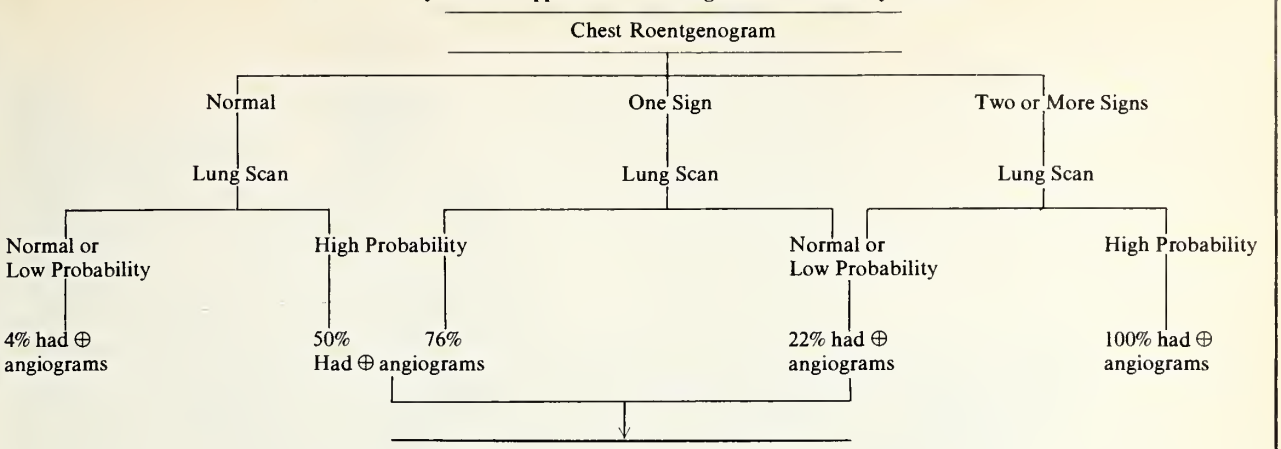
**Table 3. Pulmonary Embolism: Role of Angiography**

| Perfusion scan | Chest x-ray | Patients with positive pulmonary arteriograms |
|---|---|---|
| Normal | | 1/18 |
| Low Probability | No Signs | 0/18 |
| Low Probability | One or More Signs | 7/32 |
| High Probability | No Signs of Emboli | 4/8 |
| High Probability | One Sign Only | 16/21 |
| High Probability | Two or More Signs | 17/17 |

**Table 2. Pulmonary Embolism Correlation of Lung Scan and Pulmonary Arteriogram.**

| Study | Angiogram | Lung Perfusion Scan | | | |
|---|---|---|---|---|---|
| | | High Probability | Equivocal | Low Probability | Normal |
| Poulose 1970 | Positive 25 | 18/24 (75%) | 4/18 (22%) | 3/10 (30%) | 0/12 |
| | Non-Specific 17 | 4/24 (15%) | 7/18 (39%) | 4/10 (40%) | 2/12 (17%) |
| | Normal 22 | 2/23 (9%) | 7/18 (39%) | 3/10 (30%) | 10/12 (83%) |
| Moses 1974 | Positive 46 | 37/45 (82%) | | 9/59 (15%) | |
| | Negative 58 | 8/45 (18%) | | 50/59 (85%) | |

**Table 4. A Systematic Approach to the Diagnosis of Pulmonary Emboli.**




Further Investigation Required

1. Pulmonary arteriogram
   a) Symptoms present <48 hours
   b) High risk from anticoagulation
   c) Long-term therapy required
2. Lower extremity venogram
   a) Symptoms present >48 hours and resolving
   b) Little risk from anticoagulation
   c) Short-term therapy planned.

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# Hugh Mercer: Physician-Hero Of the American Revolution

E. Randolph Trice, MD, *Richmond, Virginia*

Born in Scotland and educated in medicine at the University of Aberdeen, Hugh Mercer came to the American frontier and distinguished himself as a military man. Had he not been killed at the Battle of Princeton, says one historian, his career might have equalled that of his good friend, George Washington.

THE most prominent statue in Fredericksburg, Virginia, is that of Dr. Hugh Mercer. It was commissioned by the United States Congress in recognition of Mercer's service to his adopted country. Cities, countries and schools in Pennsylvania and New Jersey are named for him. He was a genuine hero of the American Revolution.

Hugh Mercer was born in Aberdeen, the son of a minister of the Church of Scotland, in about 1725. He graduated in medicine from Marischal College of the University of Aberdeen in 1744. A year later, at the crucial Battle of Culloden, he was an army assistant surgeon for the troops of the Pretender, Bonnie Prince Charlie. Here he apparently learned the art of military medicine.

After the defeat of the Pretender, Prince Charles, Mercer, like hundreds of other Highland Scots, fled his native land. He took passage on a ship for America and landed in Philadelphia in May 1747. His stay in the Quaker city was short. He moved to the frontier, locating near Green Castle in what is now called Mercersburg.

There was a shortage of physicians on the frontier and Mercer apparently acquired a large practice treating primarily injuries and fractures.

In 1755 the military disaster known as "Braddock's Defeat" occurred. Mercer journeyed to nearby Fort Cumberland and offered his services to Dr. James Craik, surgeon to the Virginia militia. Under the most primitive conditions Dr. Mercer treated the British wounded. When Indian atrocities continued, the British were requested to remain on the frontier, but they withdrew to Philadelphia, leaving the area open to repeated attack and reprisal. Quaker domination of the Pennsylvania Assembly had prevented the establishment of a militia to protect the frontiersmen, and a reign of terror gripped the unguarded frontier in the fall of 1755. While the Assembly procrastinated and persued its unrealistic peace policy, Mercer and his neighbors had to construct private forts along the border. One of these forts was at McDowell's Mill, and it was here that Mercer served as both surgeon and volunteer soldier. Finally, in December 1755 Pennsylvania authorized a militia

This is the fourth in a series of biographies by Dr. Trice on Virginia physicians who figured in the American Revolution. The previous works were on Arthur Lee, in the July 1979 issue; Theodorick Bland, February 1980; and Adam Stephen, July 1980.

Address correspondence to the author at the McGuire Clinic, 7702 Parham Road, Richmond VA 23229.

**The statue of Hugh Mercer in Fredericksburg.**

and in March 1756 Mercer was commissioned a captain of infantry.

Repeated attacks by the French and Indians prompted the provincial forces of Pennsylvania to retaliate. Six companies, including Mercer's, set out in the fall of 1756 to clear the enemy out of the Allegheny River area. Mercer was wounded, separated from his troops and wandered ten days in the wilderness, subsisting on wild plums, berries and rattlesnake meat. On another occasion he was wounded and captured by the Indians, then escaped and wandered lost in the wilderness for a month before finally returning to civilization. Once back he was received as a hero. The corporation of Philadelphia bestowed its thanks on him and had a medal struck in his honor. After recovering from his wounds in Lancaster, Mercer was promoted to major and given command of the Province of Pennsylanvia west of the Susquehanna.

In 1758 Mercer joined General Forbes in his successful expedition against Fort DuQuesne. He was given command of the fort, which was renamed Fort Pitt, and promoted to colonel. It was on this campaign that he met Colonel George Washington. It was Washington, among others, who encouraged Mercer to come to Fredericksburg after the French and Indian War to practice medicine. And it was in the beginning of an enduring friendship between Mercer and Washington.

On January 15, 1761, Hugh Mercer was mustered out of the service. He had enjoyed the soldier's life and was not particularly anxious to return to the practice of medicine. He wrote from Fredericksburg in February 1761, "All prospect from Pennsylvania service failing, I determined upon applying myself to the practice of physick and this place was recommended as likely to afford in genteel subsistence in that

way. Whether it will answer any expectations I cannot yet judge; but from the reception I met from the gentlemen here, have reason to imagine it worth a few months' trail". He put up at Gordon's Inn, the most popular hostelry in town, and married the proprietor's daughter, Isabella Gordon. Isabella bore him one daughter and four sons. The daughter married a Patton, and one of her descendants was General George Patton.

Initially, the medical practice was not prosperous, but Washington was able to secure for Mercer the appointment as civilian doctor to the Virginia military establishment. Later the practice grew rapidly. In 1771 Mercer formed a partnership with Dr. Ewen Clements and opened an apothecary shop. A year later he formed a partnership with Dr. John Julian, which lasted until the Revolutionary War in 1776, when the shop was sold to Dr. Thomas Powell. The shop has been restored and is open to the public in Fredericksburg today.

Mercer has been described as a "physician of great eminence and merit". He practiced for 15 years prior to the Revolution. As the practice prospered he acquired land, including Ferry Farm, from his friend George Washington. He was a member, with Arthur Lee and Thomas Jefferson, of the American Philosophical Society.

In 1775 Mercer was elected colonel of a battalion of minutemen raised in the Fredericksberg area. Later, when a regular militia was established, he was elected colonel of the Third Regiment of Virginia troops and reported for duty at the training camp at Williamsburg.

Goolrich tells an interesting story on Mercer in Williamsburg that illustrates both his bravery and leadership: "Among the troops which were sent there at the time was a company of riflemen from beyond the mountains, commanded by a Captain Gibson. A reckless and violent opposition to military restraint had gained for this corps the name of 'Gibson's Lambs'. After a short time in camp a mutiny arose among them, causing much excitement in the army, and alarming the inhabitants of the city. Free from all restraint, they roamed though the camp, threatening with instant death any officer who would presume to exercise any authority over them.

"At the height of the mutiny an officer was dispatched with the alarming tidings to the quarters of Colonel Mercer. The citizens of the town vainly implored him not to risk his life in this infuriated mob.

"Reckless of personal safety, he instantly repaired to the barracks of the mutinous band and, directing a general parade of the troops, he ordered Gibson's company to be drawn up as offenders and violators of the law and to be disarmed in his presence.

"The ringleaders were placed under a strong guard, and in the presence of the whole army he addressed the offenders in an eloquent manner, impressing on them their duties as citizens and soldiers and the certainty of death if they continued to remain in that mutinous spirit equally disgraceful to them and hazardous to the sacred interests they had marched to defend. Disorder was instantly checked and the whole company was ever afterward as efficient in the deportment as any troop in the army".

In June 1776 Mercer was commissioned brigadier-general in the Continental Line and sent to Paulus Hook to observe the British on Staten Island. When the British made their advance through the Jerseys, Mercer joined Washington at Philadelphia. The plan to cross the Delaware and attack the Hessian garrison at Trenton was attributed to Mercer, and Mercer's brigade played a prominent role in this first significant American victory. But the success at Trenton did not remove the British from the Jerseys, and it was at Mercer's headquarters that the plan to slip around Cornwallis' army and attack Princeton was perfected. The success at Princeton drove the British out of the Jerseys but at a tremendous cost, the loss of Mercer. General Mercer's brigade led the attack on Princeton. By chance a British patrol found Mercer and cut him off from his troops. His horse was shot and he tried to rally his men on foot, but British soldiers clubbed him, bayoneted him seven times and left for dead. The wounds were indeed mortal. Washington dispatched Drs. Benjamin Rush and Jonathan Potts to care for Mercer, but the brave man died nine days after the wounding.

Today the visitor to the Hugh Mercer Apothecary Shop in Fredericksburg may pause and remember the life and exploits of a great American patriot.

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# Colonoscopic Polypectomy: Safe, Quick and Cost-Effective

Carl J. Friedman, MD, William J. Randolph, MBA, and
Michael Sperling, MD, *Charlottesville, Virginia*

The authors offer a striking study in costs: $2918 for laparotomy/polypectomy but only $490 for colonoscopic polypectomy, which also saves the patient lengthy hospitalization and resultant loss of productivity. Moreover, the authors suggest ways in which the financial savings of the new technique may be enhanced.

THE ADVENT of colonoscopy and colonoscopic polypectomy during the last decade has broadened our concepts of colon polyps, which are now considered pre-malignant lesions, and colonoscopic polypectomy has become firmly entrenched as a safe, rapid and effective method of dealing with these lesions. Moreover, unlike so many other advances related to new technology, colonoscopic polypectomy is less expensive than the alternative laparotomy/polypectomy, with its attendant general anesthesia and lengthy hospitalization.

This paper estimates the savings to the patient of colonoscopic polypectomy, as against laparotomy and analyzes the factors in the procedure's total cost.

**Methods**

The colonoscopy records for 150 consecutive procedures performed during 1978-1979 on the Gastrointestinal Endoscopy Service, Department of Medicine, University of Virginia, were reviewed to determine the location of all polyps removed, the average number of polyps removed per procedure, and the percentage of patients having one, two, three or more polyps removed per procedure.

The cost of colonoscopic polypectomy was assessed by mailing questionnaires to members of the Virginia Gastroenterologic Society and the Virginia Surgical Society.

The questionnaire consisted of the following inquiries:

1. What is your average fee for diagnostic colonoscopy? Respondents indicated if their fee varied with the extent of colonoscope insertion.
2. Do you have a fixed fee for colonoscopic polypectomy? If not, do you charge according to polyp size, polyp location, time spent or number of polyps removed?
3. What is the maximum number of polyps you will remove at each sitting?
4. What percentage of your patients are hospitalized for colonoscopic polypectomy?
5. In patients hospitalized for colonoscopic polypectomy, what is the average length of stay, providing no complications occur?
6. What is the daily room rate for hospitalized patients?

From the Department of Medicine, University of Virginia School of Medicine. Address correspondence to Dr. Friedman at Box 145, University of Virginia Hospital, Charlottesville VA 22908.

Submitted 6-25-80.

The total cost of colonoscopic polypectomy was determined by adding the professional fee for the procedure to the cost of hospitalization when applicable. The professional fee was determined by the responses to questions 1 through 3, as well as from the results of the review of colonoscopic polypectomies at the University of Virginia. If a range of charges was reported depending on the depth of insertion, a weighted average was calculated based on the assumption that in 85% of patients the colonoscope can be advanced to the cecum. (The figure of 85% represents a composite of many series reported in the literature.) The charge for polypectomy was then added to the fee for diagnostic colonoscopy. If a "fixed" fee for polypectomy was reported, this was added to the fee for diagnostic colonoscopy. If the fee varied with location of polyp, a weighted average was calculated based on the observation that 66% of polyps are located distal to the splenic flexure. If the fee varied with the number of polyps removed, calculation was based on a frequency distribution of polyps removed, derived from review of the University of Virginia gastrointestinal endoscopy records.

The cost of hospitalization was derived from answers to questions 4 through 6, by multiplying the percentage of patients hospitalized, the average number of days in the hospital and the hospital's daily room rate. This result was then added to the professional fee for colonoscopic polypectomy, yielding a total cost figure for the procedure. The calculations were done for each respondent and then averaged to yield a final total cost figure.

The records of the University of Virginia's Tumor Registry were reviewed, and patients who had benign colon polyps removed by laparotomy was evaluated. Only patients hospitalized specifically for laparotomy and polypectomy were included; surgical polypectomies during the course of other operations or during a hospitalization for other illnesses were excluded. The hospital bills and professional charges were obtained for those patients, and the length of hospitalization was recorded.

**Results**

Analysis of distribution and frequency of 96 polyps removed during 150 consecutive colonoscopies revealed that 66% were distal to the splenic flexure and 34% proximal to that landmark. Patients who had one polyp removed comprised 69%, 11% had two polyps removed, 10% had three removed and the remaining 10% had four or more removed.

Of the questionnaires sent to 45 members of the Virginia Gastroenterologic Society, 24 (53%) were returned; of these, 16 indicated that they performed colonoscopic polypectomy. Of the questionnaires sent to 228 members of the Virginia Surgical Society, 34 (15%) were returned; of these, 14 performed the procedure. The survey therefore consisted of the pooled responses of 30 physicians and surgeons representing 11% of the group sent questionnaires.

The average fee of these respondents for diagnostic colonoscopy was $284, with a range of $172 to $550.

Approximately one-third charged a fixed fee for colonoscopic polypectomy which was added to the fee for diagnostic colonoscopy; another one-third varied their fees with polyp location (left side, right side); and the remaining one-third used a combination of polyp location, size, time taken to perform the procedure and number of polyps removed to arrive at a fee. Each response was considered and calculated individually, yielding an average fee of $390 for colonoscopic polypectomy, with a range of $231 to $750.

As to hospitalization practices, 13 of the 30 respondents (43%) stated they hospitalized all patients 1-3 days for colonoscopic polypectomy. Six of the 30 (20%) hospitalized from 50-98% of their patients for the procedure. The rest hospitalized 10% or less; two of these respondents stated they never hospitalized patients for the procedure.

The cost of hospitalization added to the professional fee resulted in the average total cost figure of $490 for polyp removal via the colonoscope.

As for laparotomy/polypectomy, the University of Virginia's Tumor Registry records revealed that six patients were hospitalized during 1978 for laparotomy and polypectomy. The average hospital stay was 11 days, and the average bill for these patients, including hospital and professional fees, was $2,918, six times greater than the cost of colonoscopic polypectomy. The procedure most frequently performed was colotomy with polyp excision, although segmental colonic resection was also performed.

**Discussion**

The contrast in costs as estimated by this survey is striking: for colonoscopic polypectomy, an average total cost of $490; for laparotomy/polypectomy, an average cost of $2,918.

The two procedures also contrast sharply in the loss of patient productivity. Patients undergoing colonoscopic polypectomy may not be hospitalized at all, or, if they are, for 1-3 days only, while patients undergoing laparotomy/polypectomy are hospitalized for an average of 11 days and after discharge do not return to work for several weeks.[1]

Moreover, further reductions in the cost of colonoscopic polypectomy could be achieved. The need

for hospitalization in particular should be evaluated. Although our survey did not seek the physician's reason for hospitalization, the most likely reason is for bowel preparation. The mechanical bowel prep is most commonly used for colonoscopy, and with this regimen difficulty may be encountered with enema administration. In our experience with several hundred colonoscopies, however, administration of enemas by the patients themselves or by family members has yielded satisfactory bowel cleansing in the majority of instances. Patient acceptance is improved by detailed, careful explanation of all aspects of the preparation, and the extreme importance of adequate preparation is emphasized. Hospitalization for one evening prior to the procedure may be necessary in patients who do not have other means of obtaining mechanical bowel cleansing or for patients who have underlying medical illnesses requiring close scrutiny during preparation, but in our experience, these instances are infrequent. Other types of bowel preparation include the ingestion of mannitol or sorbitol, although this method is not recommended because of the occasional complication of colonic explosion[2] of $H_2$ gas produced by colonic flora. Saline lavage[3] is another effective colon preparation but frequently requires hospitalization because of difficulties encountered with mixing and ingesting the solution.

Hospitalization following colonoscopic polypectomy is seldom necessary. Almost all patients are ready to go home within 60 minutes of procedure completion. Patients with chronic diseases who have been hospitalized for observation during preparation may require continued observation but should be ready for discharge 12-24 hours after the procedure.

One survey respondent indicated that fear of litigation in the event of complication may prompt physicians to hospitalize patients post-polypectomy for 24-hour observation. Complications are infrequent, and hospitalization of all patients in hopes of detecting the 2% incidence of perforation and hemorrhage[4] should be discouraged. We routinely instruct all our patients to contact us immediately if they develop abdominal pain or more than mild blood-streaking of stool after returning home.

Beyond minimizing hospitalization, further attempts at cost reduction must focus on the professional fee, which is responsible for 80% of the total cost. Many considerations enter into the formulation of these schedules, and our survey did not attempt to evaluate these. The one factor that might be assessed is the number of polyps removed, since this influences the physician's fee, and the question that really must be answered is: Should all colonic polyps be removed? Before the advent of colonoscopic polypectomy, only selected polyps were considered for surgical removal, but the ease of colonoscopy has led to a marked increase in the number of polyps removed, possibly negating the cost effectiveness of the procedure.[5]

Recent advances in the field of colon carcinogenosis and cancer evolution have demonstrated that most, if not all, cancers of the colon and rectum begin in previously benign neoplasms. Gilbertsen's[6] experience with removal of all rectal polyps at the time of proctoscopy and a subsequent 85% reduction in rectal cancer incidence has supported the concept of the polyp-cancer sequence. This information has led to recommendations by highly qualified investigators[7] that all colon polyps be removed although the real cost benefit ratio of removing small (less than 5 mm) polyps and its impact on reducing the incidence of colon cancer has yet to be quantified.

Colonoscopic polypectomy must be viewed in perspective. For the most part, it is a means toward an end, the end representing the eventual reduction in the incidence of colon cancer, and the detection of colon cancer in its early stages. Clearly, colonoscopic polypectomy is an effective and relatively inexpensive method of removing colonic lesions that may eventually become malignant if left intact. If the relative ease of performing the procedure has led to the removal of more polyps than would have been removed otherwise, this might be balanced by a future reduction in the incidence of colon cancer.

The authors thank Dr. David D. Stone for his helpful suggestions and Mrs. Betty Finn for her secretarial assistance.

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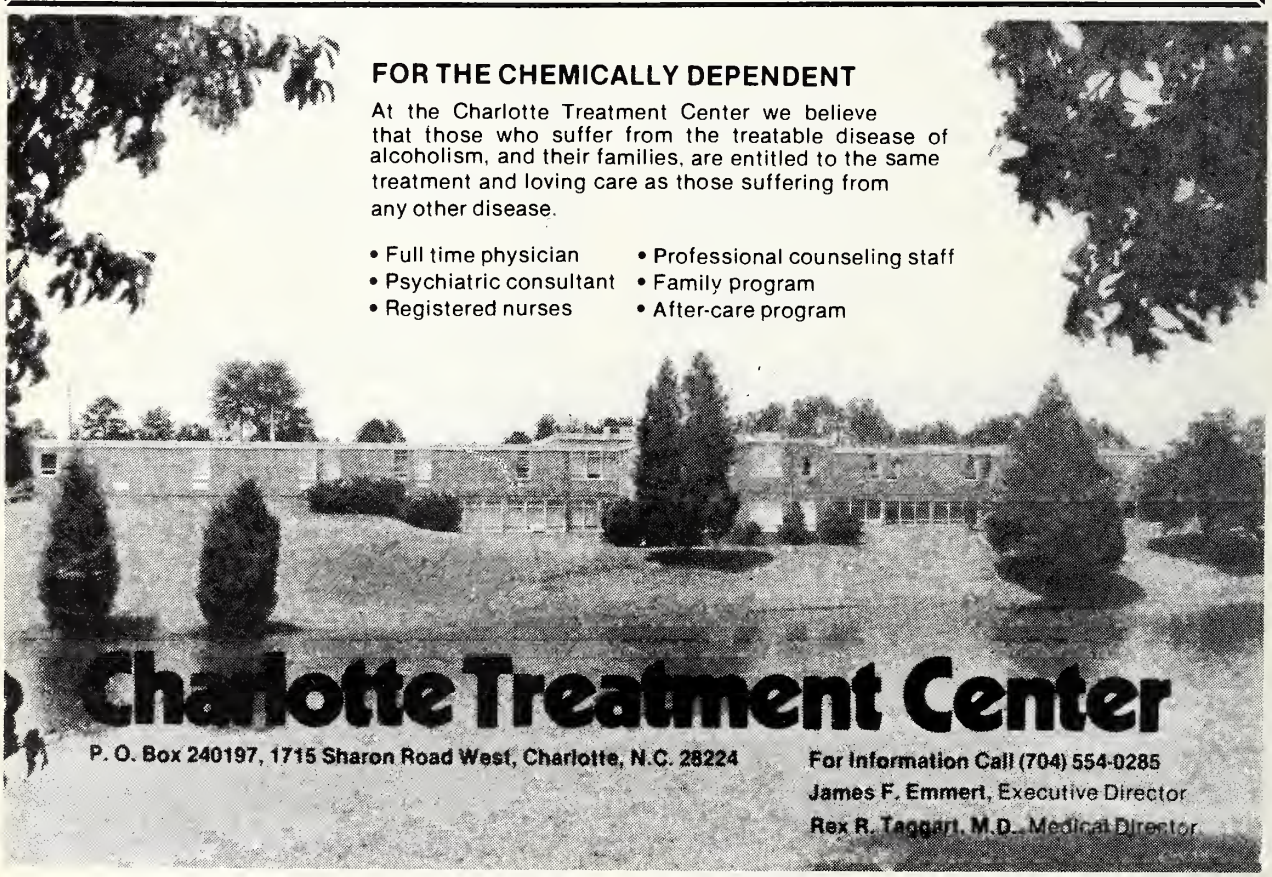
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# Grand Rounds: Acute Encephalitis with Myocoplasma Infection

From the Department of Pediatrics,
Medical College of Virginia/Virginia Commonwealth University.
Discussed by Stuart P. Adler, MD.

## Presentation of Case

An 8-year-old black female had an upper respiratory tract infection and cough for 2 weeks and was treated for tonsilitis with benzathine pencillin 2 days prior to admission. She then complained of fever and headache, refused to eat or drink, became increasingly lethargic and was admitted to a hospital, where on admission the patient was obtunded, febrile with enlarged tonsils and questionably stiff neck. Her reflexes were brisk and symmetrical and the fundi were normal. A lumbar puncture showed 18 cells per $mm^3$ (16 lymphocytes and 2 polys) CSF, glucose was 51 mg% and protein 40 mg/dl. Because of progressive deterioration of her neurologic status, the patient was transferred to the Medical College of Virginia Hospital's intensive care unit. On admission she responded to painful stimuli only by withdrawal. Her temperature was 101°F, and pulse, respirations and blood pressure were normal. Pupillary response and fundi were normal. She had marked posturing of the left arm and leg with increased tone, the Babinski response was present on the left, and deep tendon reflexes were brisk. Liver function tests, serum protein and electrolytes calcium were normal, as was her chest x-ray. CT scan of the head showed small ventricles but no focal lesions, EEG showed diffuse slowing. PT and PTT were normal. CSF obtained by ventricular tap showed 26 WBCs/mm (4 polys, 21 lymphocytes, 1 monocyte), pressure of 14 mmHg, and protein of 46 mg/dl. Amphetamines, barbiturates, benzodiazempimes, tricyclic anti-depressants, phenothiazines and alkaloids were undetectable in urine and blood.

Herpes encephalitis was considered a possible di-

Address correspondence to Dr. Adler at Box 163, MCV Station, Richmond VA 23298.

Presented January 15, 1980.

agnosis and the patient was started on adenosine arabinoside, 15 mg per kilogram a day for 10 days. She developed intermittent anisocoria and decerebrate posturing. A ventriculostomy was performed, and an intracranial pressure (ICP) monitor was placed. Fever defervesced after the first day of hospitalization. Aerobic, anaerobic, fungal, mycoplasma, mycobacterial and viral cultures of lumbar and ventricular fluids were obtained. On the following day a biopsy of the right temporal area of the brain showed perivascular mononuclear infiltrates and loss of nuclear structure indicating neuronal death. Immunofluorescent stains of the biopsy material failed to reveal herpes simplex antigens.

She was treated with dexamethasone to control the intracranial pressure. After 2 days of treatment ICP returned to normal, and dexamethasone and ICP monitoring were both discontinued. Two days later she was found to be more alert and responded to commands. She continued to improve neurologically and ultimately had complete resolution of all the neurological findings.

On the third day of hospitalization serum mycoplasma, complement fixation (CF) titers were reported to be 1:1024, and she was started on tetracycline, 300 mg qid IV for 7 days. Her subsequent mycoplasma titers at 2 and 4 weeks were 1:256 and 1:128 respectively, CSF mycoplasma titer was 1:1.

Additional laboratory findings were normal immunoglobulin levels and sterile bacterial, viral and fungal cultures of brain tissues, blood, CSF and urine. Mycoplasma cultures of CSF and brain tissue were negative. Cold agglutinin titers were positive at a dilution of 1/20. Monospot test and intermediate strength PPD were negative. Acute and convalescent sera for rubeola virus, EB virus, herpes virus, CMV, toxoplasma, arboviruses, cryptococcal antigen, rabies virus, enteroviruses, influenza virus, parainfluenza and adenoviruses failed to show a titer rise to these agents.

## Discussion

The cause of this girl's encephalitis appears to be a concurrent or preceeding infection with *Mycoplasma pneumoniae.* This conclusion is supported by history of URI, elevated level of antibody against *M pneumoniae* as determined by CF, 4-fold drop in CF titer over the subsequent 4 weeks, and lack of serologic, histologic or culture data supporting another etiology.

Central nervous disease associated with *M pneumoniae* infection was first suggested by Yesnick in 1957, when he reviewed 38 cases of neurological disease associated with primary atypical pneumonia.[1] Subsequent to the identification of *M pneumoniae* as the cause of primary atypical pneumonia, many case reports,[2–6] reviews,[7] and studies[8–10] have appeared associating neurological disease with *M pneumoniae* infection (Table 1). Five case reports appeared between 1973 and 1979,[2–6] 47 published cases were reviewed by Lerer and Kalovsky,[7] and 19 were reported by Lind and associates,[8] for a total of 71 reported cases. Evidence for mycoplasma infection was established by serological data, almost all exhibiting an *M pneumoniae* complement fixation titer of greater than 1:64, accompanied by a subsequent rise or fall in this value.

**Table 1. Neurological Dysfunction Associated with *M pneumoniae* Infections.**

| Anatomical site of of dysfunction | Number of cases reported | Number of cases with neurological residual | Number of deaths |
|---|---|---|---|
| Spinal Cord | 2 | 1 | 0 |
| Cerebellum | 8 | 1 | 0 |
| Spinal Nerve Roots | 15 | 5 | 0 |
| Cranial Nerve | 10 | 4 | 0 |
| Cerebrum-focal | 10 | 4 | 0 |
| Cerebrum-nonfocal | 17 | 1 | 2 |
| Meninges | 10 | 0 | 0 |
| Total | 72 | 16 | 2 |

The neurological complications associated with mycoplasma infections have included signs and symptoms of 1) spinal cord dysfunction, as manifested by motor weakness and sensory loss; 2) cerebellar dysfunction with ataxia, dysarthria or nystagmus, 3) spinal nerve root dysfunction with flaccid weakness and decreased reflexes; 4) cranial nerve dysfunctions; 5) encephalitis with altered mental status without evidence of metabolic or vascular etiology; and 6) aseptic meningitis with meningeal signs and CSF pleocytosis. In all cases where CSF pleocytosis was reported (greater than 10 cells), cells were predominantly lymphocytes. Protein concentrations were moderately elevated and glucose levels normal. Several patients had complex multiple neurologic dysfunctions.

To these 71 cases reported in the literature, we have added one case of our own, for a total of 72 cases. Of these, 16 (22%) had permanent neurological impairment (Table 1). Males in the 3-to-20—year age range appear at highest risk of neurological dysfunction (Table 2). Of seven deaths reported in patients with neurological disease and mycoplasma infections,[2,11,12] two appear directly related to the neurological disease.[2] These two patients had severe encephalitis with cerebral edema.

Forty of the 72 patients had concurrent pneu-

monia proven by chest x-ray, 15 had upper respiratory tract symptoms and 17 were asymptomatic but had serological evidence of a concurrent or preceeding mycoplasma infection. Neurological complications developed an average of 8 days (range 1 to 23 days) following the onset of respiratory tract symptoms. Mycoplasma complement fixation titers peaked between the 6th and 20th day following this complication.

In all the reported cases no clinical signs, symptoms or laboratory findings such as ESR, WBC, EEG or height and duration of fever could be correlated with elevated mycoplasma titers.

It is impossible to determine the true incidence of neurological complications following mycoplasma infection. A more important question is, what percentage of patients presenting with fever and signs and symptoms of neurological dysfunction have concurrent mycoplasma infections? An extensive prospective study recently reported by Lind and associates determined mycoplasma titers on 371 patients with acute, febrile, non-bacterial infections of the CNS over a period of five years.[8] They found 19 patients (Group 1) had evidence of a concurrent mycoplasma infection as evidenced by a titer of greater than 1:1000 or by a 4-fold rise in titer, 32 patients (Group II) had a mycoplasma titer greater than 1:64 without a documented titer rise, and 320 had no serological evidence of mycoplasma infection. Mycoplasma titers were also done on 515 control subjects without neurological disease but with the same age distribution as the patient population, over the same time period. None of the controls met the Group I criteria for current mycoplasma infection and 15 (2.9%) had a mycoplasma titer of greater than 1:64 (Group II). Thus the incidence of mycoplasma infections for hospitalized patients with acute, febrile, non-bacterial CNS disease was 5.1% for Group I and 13.7% for Groups I and II combined. Two patients with encephalitis in Group I also had a rise in antibody to herpes virus. For the other patients in Groups I and II no other cause for their neurological dysfunction could be identified.

**Table 2. Age and Sex in 69 Cases of Neurological Dysfunction/ *M pneumoniae* Infection.**

| Age | Number of Cases | Male/Female |
|---|---|---|
| 3–6 | 3 | 3/0 |
| 7–20 | 35 | 26/9 |
| 21–20 | 10 | 5/5 |
| 31–40 | 8 | 3/5 |
| 41–50 | 7 | 5/2 |
| over 50 | 6 | 3/3 |
| Total | 69 | 45/24 |

These observations suggest, but by no means prove, that mycoplasma infections may be complicated by a variety of neurological malfunctions and that, of patients with acute, febrile CNS disease, a high percentage (4–13%) may have a preceeding or concurrent mycoplasma infection.

If a cause and effect relationship exists between mycoplasma infection and neurological disease, the pathogenesis of this association is uncertain. Direct invasion of the CNS by *M pneumoniae* seems unlikely because *Mycoplasma pneumoniae* organisms appear to confine their replication to the respiratory and genitourinary tracts. Moreover, hematogenesis spread of *Mycoplasma pneumoniae* has never been documented, nor has invasive disease excluding that in the lung and genitourinary tracts. Finally, *Mycoplasma pneumonia* organisms have never been recovered from CSF or neural tissue in the few cases where cultures have been attempted.[3,8,13]

A plausible explanation for the occurrence of neurological disease following *Mycoplasma pneumoniae* infection is that antibodies synthesized against *M pneumoniae* cross-react with neural tissue. Evidence for this hypothesis was reported in 1971 by Biberfeld,[9] who demonstrated that seven patients developing neurological disease following mycoplasma infection also developed a 4-fold rise in CF antibody against human brain tissue. In addition, 43 of 54 patients with mycoplasma infection without neurological disease also developed rising and falling titers of the anti-brain antibodies. A control group of 15 patients with viral respiratory tract illnesses did not synthesize these antibodies. In each case the rise in anti-brain antibodies paralleled the rise in anti-mycoplasma antibodies. Of these patients, 75% also developed antibody to human lung and liver but in lower titers than against brain. The anti-brain complement fixation activity could be significantly reduced by adsorption of sera with *M pneumoniae* antigens prepared in vitro, suggesting similar antigenic determinants in human brain and *M pneumoniae* organisms. In 26 cases the anti-brain antibodies were IgM, while anti-mycoplasma antibodies were both IgM and IgG. These observations by Biberfeld, now nearly a decade old, suggest that CNS antigens cross-react with antibodies made against *M pneumoniae* and that an autoimmune inflammatory disease is initiated if these antibodies gain access to the CNS. In the past ten years no new evidence has appeared to support this hypothesis. In the study by Lind and associates, anti-brain antibodies were measured in ten patients in Group I. Only two of these patients had elevated anti-brain titers. Clearly, additional data are required to confirm this hypothesis.

No specific antibiotic therapy is known to be effective for the treatment of the neurological disease associated with mycoplasma infection. Our patient was treated with tetracycline because she was symptomatic. Tetracycline reduces the shedding of *M pneumoniae* from the respiratory tract[14] and may, therefore, reduce the duration and intensity of antigenic stimulation by *M pneumoniae.*

In summary, mycoplasma infections both apparent and inapparent seem to be associated with a variety of neurologic dysfunctions. The cause and effect relationship has not been proven, but the association appears to occur more frequently than expected by chance alone. The pathogenesis is also uncertain but data suggest that these neurologic complications may be due to an autoimmune inflammatory process initiated by antibody directed against *M pneumoniae* that cross-reacts with neural tissue. Despite these uncertainties, mycoplasma infection should be considered in the differential diagnosis of fever and acute neurological disease.

DR. JANICE COCKRELL: Why was the adenosine arabinoside continued when the biopsy was negative for herpes simplex?

DR. ADLER: The adenosine arabinoside was started between 12 and 26 hours prior to the time the biopsy was done. I suspect this did not affect the histopathology, immunofluorescent staining for herpes antigen, or cultures; however, adequate data are not available. The biopsy should have been done immediately, and the adenosine arabinoside started subsequently. Adenosine arabinoside, when given at a dose of 15 mg per kilogram per day, usually produces no significant toxicity. More important, adenosine arabinoside is not immunosuppressive. When lymphocytes are exposed to biologically active concentrations of adenosine arabinoside in tissue culture, they function normally for both specific and general T-cell functions. Limited studies of patients with herpes virus infections receiving adenosine arabinoside have revealed normal or enhanced cellular immunity. Also, adenosine arabinoside does not suppress antibody production. For these reasons, once a patient with an acute encephalitis is started on adenosine arabinoside therapy, it should probably be continued for a full 10 days unless there is absolute proof of another etiology. We were, however, concerned about using both adenosine arabinoside and tetracycline simultaneously, fearing either antagonism or enhanced toxicity, but could find no specific information about this drug combination. Because of the very serious condition of this patient, we decided to use both drugs and carefully monitor toxicity.

DR. ROBERT LOVINGER: Are there any data available concerning the use of corticosteroids in the treatment of the neurologic complications of mycoplasma infections?

DR. ADLER: They have been used, but adequate data concerning their efficacy are not available. In a patient with severe or life-threating neurologic disease, with elevated mycoplasma titers, and where no other etiology can be identified, the use of corticosteroids might be considered, particularly with cerebral edema and increased intracranial pressure.

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# Cancer Trends: The Potential of Radiation Modifiers

David Elkon, MD, *Charlottesville, Virginia*

Three classes of chemical compounds containing protective and sensitizing agents are being tested in an effort to modify the biological effects of radiation. Some positive results have been recorded, and there are indications that further efficacy will be demonstrated.

THE ideal cancer treatment would be an agent which selectively destroys malignant cells but does not affect surrounding normal tissues. Such selectivity has been achieved in much of antimicrobial therapy and has led to rapid elimination of many bacterial, fungal, protozoal and viral infections in man. For treating malignant tumors, however, we have had to utilize therapeutic agents with partial selectivity.

Cancer therapy is further complicated by having to cope not only with local tumor growth but also regional and distant metastatic disease. This review will be concerned largely with local tumor therapy. Although great progress has been made in control of local disease, it has been estimated that one-third of cancer patients still fail treatment because of uncontrolled primary tumors.[1]

From the Division of Radiation Oncology, University of Virginia Medical Center, Charlottesville VA 22908.

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Ionizing radiation has been used for cancer therapy since the early part of the 20th century. X-irradiation inhibits proliferation of malignant cells. The degree of inhibition is dependent on the dose of radiation, and control of tumors increases with increasing radiation dose. Unfortunately, the adverse effects of irradiation on normal tissues also increase with increasing doses. In Figure 1 a schematic representation of the relationship between tumor control and normal tissue injury is depicted. The ratio of the radiation dose for tumor control to the normal tissue tolerance dose has been termed the therapeutic ratio.

There are two broad methods of improving the control of local malignant tumors by radiation:

First, limiting the anatomic distribution of the radiation energy deposition. This would improve the therapeutic ratio by excluding normal tissues at risk for injury from the treatment volume. The use of high energy treatment beams, local interstitial and intracavitary treatments, and computer assisted treatment planning, have greatly increased our ability to deposit large radiation doses locally within the tumor. Further improvement may occur in the future with the use of pi meson radiation. With many tumors, however, the treatment volume should include

areas of microscopic tumor cells beyond the grossly identifiable tumor mass and consequently must include surrounding normal tissues.

Second, modifying the biological effects of the radiation so that the therapeutic ratio is improved. This can be achieved either by increasing the tumor cell killing without increasing the normal tissue complications, or conversely by protecting normal tissues against radiation injury without compromising tumor cell destruction (Figure 1). Many chemical agents have been used to achieve this and these are the subject of this review.

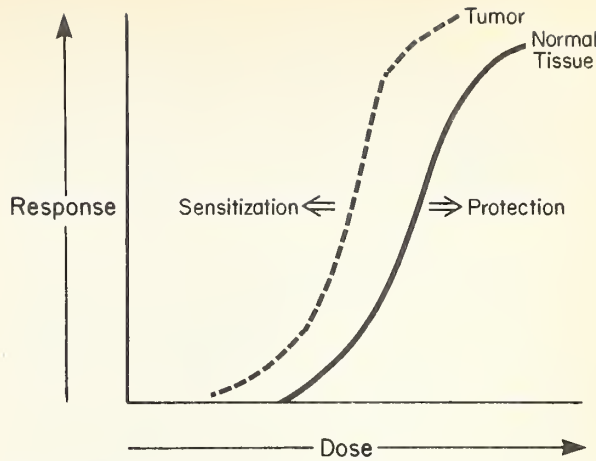


**Fig. 1. Schematic representation of radiation dose response relationship for malignant tumor control and normal tissue complications. Arrows represent shift in curves due to radiation sensitizers and protectors.**

## Radiation Sensitizers

The idea of improving the response to irradiation by chemical agents goes back to the early days of radiotherapy when Werner of Heidelberg[2] used a preparation of chlorine borate to sensitize radiation. However, little progress was made for many years. In recent years interest has increased in a number of areas.

*Hypoxic cell sensitizers.* Since the classical work of Thomlinson and Gray[3], many investigators have demonstrated the presence of hypoxic cells within malignant tumors. It has also been amply demonstrated in many experimental and clinical systems that hypoxic tumor cells are resistant to destruction by radiotherapy. In contrast to malignant tumors, most normal tissues are well oxygenated, and sensitizing hypoxic cells to radiation damage could provide a basis for selective inhibition of tumors.

A group of electron-affinic compounds has been developed which can sensitize hypoxic cells to ionizing irradiation (Fig. 2). These compounds have two further properties important for sensitizers, viz., they are slowly metabolized in vivo, and they can diffuse from tumor vessels to regions of hypoxic cells.

Two compounds, metronidazole (Flagyl®) and misonidazole (R0-07-0582), have come into clinical usage. In human studies, however, it soon became evident that therapy would be complicated by significant toxicity. Large doses of metronidazole must be administered in order to obtain significant sensitization. At these doses patients develop severe GI symptoms of nausea and vomiting. Misonidazole sensitizes hypoxic cells at lower concentrations and it can be administered to patients without immediate side effects. At cumulative doses of greater than 18g, however, 60-70% of patients develop peripheral neuropathy, which in some cases is irreversible. If doses are kept below 18g, very few patients develop neuropathy. GI symptoms are mild with this drug.

Clinical trials have been instituted in the United States, Canada, Great Britain and Europe to evaluate whether cure of human tumors is improved with misonidazole. Pilot studies have suggested that improved regression does occur in some tumors; however, a definite answer as to the value of this drug must await the results of controlled clinical trials.

While clinical trials are evaluating the effectiveness of misonidazole, many other sensitizers of hypoxic cells have been synthesized in the laboratory. In particular, compounds are being investigated which have a similar degree of sensitization as misonidazole and are less toxic in humans.

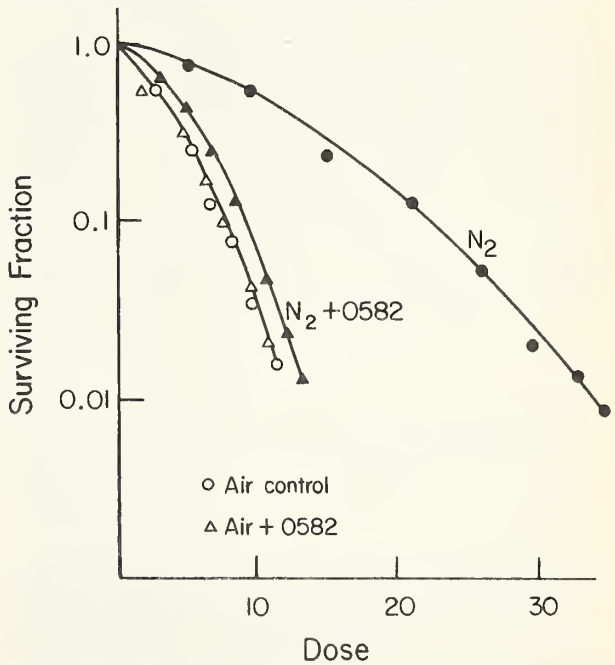


**Fig. 2. Cell survival curves for cells grown in air or nitrogen (hypoxia) with and without compound 0582, showing selective sensitization of hypoxic cells by 0582.[12]**

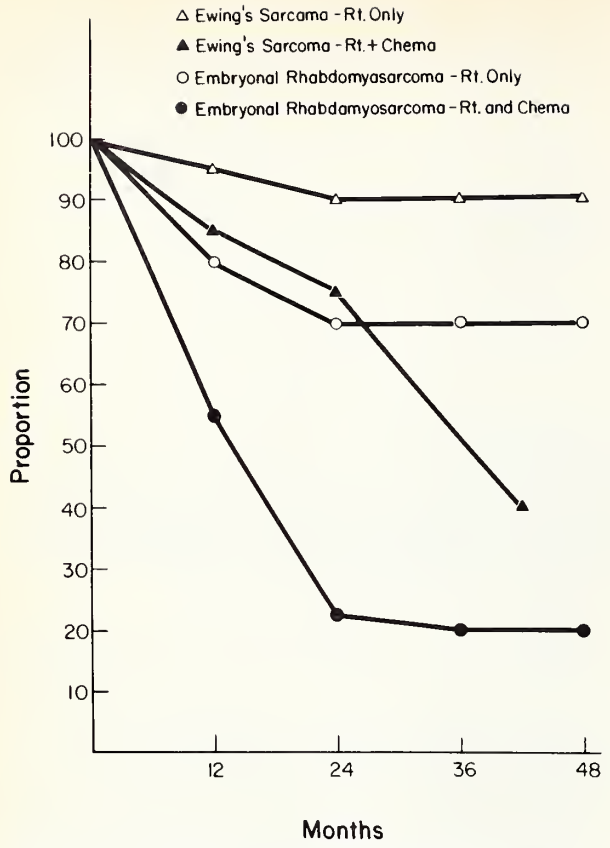


**Fig. 3. Control of primary tumors in Ewing's sarcoma and embryonal rhabdomyosarcoma with radiotherapy alone and radiotherapy with chemotherapy, showing improved local tumor control with the addition of chemotherapy.**

*Chemotherapeutic Agents.* Chemotherapy treatment of cancer began in the 1940s with the discovery of nitrogen mustard and has expanded over the ensuing 30 years with the introduction of many other active agents. Improvement in survival for many tumors has resulted largely from control of metastatic disease. In recent years attention has also been focused on the interaction of chemotherapeutic agents and ionizing radiation in controlling local tumors.

Conceptually, the interaction of these two modalities can have three forms: 1) subadditive—the combined activity is less than the sum of the activity of each modality alone; 2) additive—the combined activity is equal to the sum of individual activities; 3) superadditive—combined effect greater than the sum of both agents.

A wide variety of clinical and laboratory studies have characterized these interactions in tumors and normal tissues. Of crucial concern in human tumors is whether the degree of additivity achieved by combining these agents is greater in tumor than in normal tissues. Indirect evidence for a favorable therapeutic ratio is an increase in local tumor control.

Combined chemotherapy and radiotherapy have led to improved control of local disease and survival in many pediatric malignancies. In particular, in Ewing's sarcoma and embryonal rhabdomyosarcoma there has been improvement in local tumor control[4,5]. That improvement is shown in Figure 3.

In adults, studies have clearly shown that survival is improved in oat cell lung carcinoma when chemotherapy is added to radiotherapy.[6] There has been improvement of local disease control and also lessening of failure due to distant metastases. Encouraging results have also been obtained in brain tumors, head and neck tumors and ovarian tumors. Improved survival has largely been due to additive cell kill by radiation and chemotherapy. There has not been any clearcut evidence of superadditive effects.

Of great importance to the clinical oncologist is the enhancement of radiation reactions in normal tissues. Studies of these normal organ responses have led to certain general conclusions: (1. Cytotoxic chemotherapy enhances radiation responses particularly in organs where the drug itself has demonstrated toxicity when administered alone. (2. Actinomycin D and, to a lesser extent, doxorubicin hydrochloride (Adriamycin®) enhance radiation reactions in all tissues. (3. Concurrent drug and radiation administration are most dangerous in terms of enhanced reaction.

At the University of Virginia we have investigated hydroxyurea as a radiation sensitizer. Hydroxyurea (HU) when used alone selectively kills cells in the DNA synthesis or S phase of the cell cycle. It also causes a block in cell cycling at the $G_1$ –S interphase. Cells are most resistant to radiation in the S phase, so hydroxyurea will increase cell killing here as well as accumulating cells in $G_1$, which is a radiosensitive phase.

Controlled clinical trials using hydroxyurea to sensitize radiation have been reported in head and neck and uterine cervix cancer. Clear benefit in local tumor control was demonstrated in two large trials for cervical cancer. Piver et al[7] reported improved survival in stages IIB and IIIB cervical carcinoma with the addition of hydroxyurea, while Hreshchyshyn et al[8] also demonstrated an increase in local tumor control and survival in advanced cervical carcinoma.

A number of large retrospective studies have shown rapid tumor reduction in advanced squamous carcinomas of the head and neck. Randomized studies by Stefani et al[9] and Hussey and Abrams[10] did not demonstrate any increase in tumor control by adding hydroxyurea to conventional radiation treatment. Because of the small numbers of patients and heterogeneity of primary tumor sites in these studies, we

would regard sensitization of head and neck tumors by hydroxyurea still open to question.

Twenty-five patients with advanced local tumors have been treated with hydroxyurea as a radiation sensitizer at the University of Virginia since March, 1979. Of the 19 patients who could be evaluated, 12 had epidermoid carcinoma of the head and neck, five had epidermoid carcinoma of the uterine cervix, one had recurrent malignant melanoma and one had recurrent hypernephroma. All had advanced local tumors. In the head and neck group, 11 of 12 patients had stage T3 or T4 tumors, and seven of 12 had cervical lymph node involvement. All but one of the head and neck tumors were considered too extensive for surgical resection. The tumors were treated with radiotherapy, generally 6000-6500 rads (200 rads per fraction, 5 fractions per week) with concomitant daily hydroxyurea (20-30 mg/kg).

Despite the advanced nature of the tumors, eight of 12 (67%) of the patients with head and neck tumors had a complete response (clinical disappearance of all tumor) after therapy. In the remaining four patients there was considerable tumor regression. Three of eight complete responders remain tumor-free one year post-therapy.

After treatment of advanced uterine cervix carcinoma with external and intracavitary radiation and hydroxyurea, four of five (80%) patients had complete disappearance of tumor and three patients remain tumor-free six months to one year post-therapy.

Two patients with recurrent malignant melanoma and hypernephroma showed little or no response to therapy. The complications of therapy comprise leucopenia, which occurs in most patients, and mucositis (head and neck treatments). Leucopenia complicates therapy because of the persistent fall in leucocyte count after discontinuing hydroxyurea. We have found that hydroxyurea should be stopped when the total white blood count falls below 3000/cu mm; this will keep the count at its nadir above 1500/cu mm.

In summary, we are encouraged by the results of this pilot study and will continue to accrue patients. It is planned to use computer-matched, historical control patients to assess whether the addition of hydroxyurea improves the local tumor response and patient survival.

*Other Sensitizers.* Halogenated pyrimidines, BUdR and IUdR, have been shown to increase tumor response. Three controlled clinical trials using BUdR have been reported in head and neck cancer, gynecologic cancer and osteogenic sarcoma.[11] They have not demonstrated any improvement in the therapeutic ratio.

**Radiation Protectors**

Chemical protection against radiation reactions in normal tissues has been studied for the past 30 years. Early studies demonstrated that sulphydryl-containing compounds, such as cysteamine, reduced the radiation reactions in critical normal structures of rodents by a factor of 2. Cysteamine was not tolerated, however, by larger animals.

In recent years thiophosphate derivates of cysteamine have been synthesized which are less toxic than cysteamine itself. The most effective is WR 2721, and animal studies have demonstrated greater protection of normal tissues than tumors.[7] Labelling studies have shown that shortly after administration, the drug is concentrated in the GI mucosa, bone marrow, salivary gland and liver. Since these are some of the most critical dose-limiting organs in radiotherapy, clinical trials using WR2721 in tumors at these sites have been proposed. No published information is available on its clinical usage at this time. However, if this compound is not protective to tumors in man, it may prove to be useful in treating selected tumors.

**Summary**

For over 25 years chemical substances have been sought which would modify the biological effects of radiation and improve control of malignant tumors without increasing normal tissue side effects. The greatest current interest has centered on three classes of compounds—hypoxic cell sensitizers, chemotherapeutic agents and sulphydryl—containing protective agents. Improvement in local tumor control has been demonstrated with the addition of chemotherapeutic agents, particularly in pediatric tumors. Sound theoretical reasons exist for believing that compounds in the other two groups will also improve control of human tumors. Their advantage over conventional therapy, however, must await the results of controlled clinical trials, many of which are presently underway.

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## CANCER TRENDS COMMENT

Pride of place for experimentally combining drugs with radiation to enhance its killing effect and its clinical trial undoubtedly belongs to Professor Mitchell and his associates at Cambridge University in England.[1,2]

A true radiation modifier that could be clinically and effectively used has yet to be discovered, so most of our clinical trials are simply combined modality drug-radiation treatment without the knowledge of the best time-dose schemes.

The multidisciplinary approach in the treatment of patients with malignant neoplasia is akin to an unmarked, winding, hilly road. Each time we think we are near the top, we have to go down or make a turn.

The addition of chemotherapy to radiotherapy in the treatment of human cancer has its place, and occasionally results in good control of symptoms attributed to either the primary tumor or the metastatic lesions.

The data so far accumulated from a wide variety of clinical trials designed for combined-mode cancer therapy suggests that some increased effects upon tumors can be achieved but at the expense of increased complications due to the treatment itself. In some clinical trials, to minimize such complications, the radiation dose previously known to be effective in controlling the tumor locally has been lowered on the honest assumption that prior drug therapy has rendered the tumor more radio-sensitive. Such an approach, in my opinion, is wrong, as our aim as clinicians has to be, "Combination therapy should save lives, not rads."

ANAS M. EL-MAHDI, MD

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# ABSTRACTS

*These are abstracts of papers to be presented at the 1981 Virginia regional meeting of the Virginia Chapter, American College of Physicians, in conjunction with the Virginia Society of Internal Medicine, on February 20-22 at the Homestead, Hot Springs. Dr. William E. Reefe is general chairman.*

**Constrictive Pericarditis Complicating Rheumatoid Arthritis.** James N. Sipes, MD, Neil I. Stahl, MD, and John B. Cleary, MD, *Falls Church.*

A 26-year-old white fireman presented with pleuritic chest pain, a left pleural effusion and a history of arthralgias and joint stiffness for six years. Typical joint findings of rheumatoid arthritis were present with active synovitis of the interphalangeal joints, metacarpophalangeal joints, ulnar styloid, wrist, elbow, knee and metatarsophalangeal joints, with subcutaneous nodules. A pericardial friction rub was heard. Evaluation of the pleural effusion revealed typical findings of rheumatoid pleuritis with low complement, high protein and low glucose (10 mg/dl), which did not change after glucose infusion, and rheumatoid nodule on pleural biopsy. Serologic findings were consistent with rheumatoid arthritis. Pericardial effusion was noted on echocardiogram. Nonsteroidal antiinflammatory drugs and small doses of prednisone resulted in improvement of arthritis and resolution of subcutaneous nodules. However, episodes of pleuritic chest pain persisted and a pericardial friction rub was heard intermittently. He gradually developed exertional dyspnea that severely impaired his ability to work. Four months after the onset of the pleural effusion he was admitted with chest pain, vomiting, fever and hypotension. Pulmonary function testing revealed only mild restrictive changes. Echocardiogram again revealed only a small pericardial effusion and questionable pericardial thickening. Cardiac catheterization demonstrated constrictive pericarditis and subsequently a pericardiectomy was performed with excellent symptomatic results.

**Acute Arthritis in Adults as the Initial Manifestation of Acute Rheumatic Fever.** Teresa Pullara, MD, Jeffery Glickman, MD, Daniel Birchmore, MD, and William O'Brien, MD, *Charlottesville.*

In adults, acute rheumatic fever (ARF) causes carditis less frequently than in children, and chorea, nodules and *E marginatum* are all rare in adults. The occurrence of an acute polyarthritis with fever in an adult should cause the physician to search for a source of streptococcal infection and to treat with penicillin and aspirin if this organism is cultured or if a high antistreptolysin titer is found. We report two cases of polyarthritis due to rheumatic fever in males aged 47 and 19. In the first, the antecedent streptococcal infection appeared to be cellulitis. The ARF was characterized by fever, migratory arthritis in large joints, an ESR of 130 mm/hr, and an elevated ASO titer. The second had small joint involvement, acute sacroiliitis and AV block as the only cardiac manifestation. Both were misdiagnosed: the first as septic arthritis, and the second as ankylosing spondylitis.

The diagnostic difficulties caused by acute rheumatic fever in adults are discussed, and the recent literature on skin infection as a cause of rheumatic fever, HLA antigens in rheumatic fever, and the problems of acute and chronic arthritis in adult rheumatic fever are briefly reviewed.

**Plasmapheresis as Adjuvant Therapy for Diffuse Pulmonary Hemorrhage in Systemic Lupus Erythematosus.** J. Fay, MD, B. Ross, MD, W. Byrd, MD, and D. Foreman, MD, *Portsmouth.*

S.W., a 17-year-old female presented with a 1-year history of iron deficiency anemia unresponsive to iron and folate therapy. A bone marrow examination revealed absence of iron and megaloblastoid changes. Laboratory evaluation for hemolytic antibodies and antinuclear antibodies were negative. The patient was transfused for weakness and a hematocrit of 22%. Thirty-six hours later she developed severe dyspnea, cyanosis, diffuse pulmonary infiltrates and a rapidly decreasing hematocrit. Further evaluation revealed severe hypoxemia and hypocapnea. A normal BUN and urinalysis were observed. Chest roentgenogram was consistent with adult respiratory distress syndrome. Open lung biopsy demonstrated diffuse pulmonary hemorrhage with abundant hemosiderin-laden intraalveolar macrophages. Electron microscopy showed granular basement membrane deposits. Immunofluorescent stains were positive for IgG deposition. Because of that, a kidney biopsy was done showing diffuse proliferative glomerulonephritis with hematoxylin bodies and a granular deposition of IgG and IgA. Serology became positive for

antibodies to double-stranded DNA. Treatment was instituted with pulse steroids, cyclophosphamide and plasmapheresis, as well as ventilatory support. During therapy, both clinical and biochemical improvement was noted to be temporally related to the plasmapheresis therapy. Complete recovery ensued.

This case is presented as an example of diffuse pulmonary hemorrhage in a patient with systemic lupus erythematosus. The application of plasmapheresis as adjuvant therapy is discussed.

**Continuous Ambulatory Peritoneal Dialysis: Thirteen Months Experience.** J. Roman, MD, *Salem.*

Within a home dialysis training program, continuous ambulatory peritoneal dialysis (CAPD) has been attempted in 25 adults. It failed initially on 2 and all other 23 graduated.

Followup times ranged from 1-13 months (average 7.1 months). Currently, 12 are still on CPAD, 4 were grafted, 2 died with unrelated events and in 3 CAPD was discontinued with complications (uremia after one month; non-compliance: 7.5 months; hemorrhoids: 6 months). Peritonitis was the main complication (17 episodes in 12/18 patients); incidence: 1 episode every 7.6 months at risk. These are usually benign events, treatable as outpatients in half the episodes and have not lead to mortality or catheter loss. Patient acceptance is outstanding, especially in previously hemodialyzed patients (14/18). They report subjective improvement, including greater strength and well being. All usual lab parameters are stable and well controlled. Hematocrits have increased markedly in most patients. In this followup period, peritoneal clearances have declined in one patient after 12 months, all others are unchanged. Tenckhoff catheters are easy to place and care for. No catheter problems have been encountered and only one required change.

Many problems remain unanswered; for example, long-term results and relationship of CAPD to allografting, but overall it appears as a major breakthrough in home dialysis techniques allowing better dialysis, without machinery or contact with blood, need for blood access or helper, at comparable morbidity and maybe lower costs.

**Cough Mechanics During Expiratory Muscle Weakness from Progressive Curarization.** N. S. Arora, MD, and T. J. Gal, MD, *Charlottesville.*

We studied six healthy nonsmoking males (mean age 25) in the supine position. Maximum static inspiratory and expiratory pressure (PImax, PEmax), cough pleural pressures (PpIC), cough flow rates (Vc), and cough volume (Vc) were measured in control state and after each of four incremental 0.05 mg/kg i.v. doses of d-Tubocurarine (dTc). PpIC ($CmH_2O$), Vc (L/sec) and Vc (L) were measured during three bursts of cough starting from total lung capacity (TLC) and functional residual capacity (FRC). Control values at FRC (Mean ± SEM) were: PImax 149±10 $CmH_2O$ and PEmax 145±15 $CmH_2O$. With the last dose of dTc, values were 42% and 17% respectively ($P < 0.001$). Data for the first cough bursts at TLC and FRC are tabulated: † indicates significant difference ($P<0.001$) from control.

| | Cough from TLC | | | Cough from FRC | | |
|---|---|---|---|---|---|---|
| Condition | PpIC | V̇c | Vc | PpIC | V̇c | Vc |
| Control | 136±17 | 8.3±0.6 | 74±3 | 95±13 | 2.0± 0.3 | 31±1.3 |
| dTc2 | †113±14 | 8.2±0.4 | 76±3 | †84±12 | 1.9±0.5 | 33±1.1 |
| dTc4 | † 65±10 | 7.3±0.3 | 69±3 | †43±4 | 2.1±0.4 | 33±1.3 |

These results show that V̇c and Vc did not decrease significantly even when PpIC fell to less than half control. Since PpIC is reduced, cough-induced dynamic compression of large airways is diminished. If so, flow velocity would be reduced. We conclude that this may be the major effect of expiratory muscle weakness on cough dynamics.

**Transbronchial Lung Biopsy and Hemodynamics in Patients with Talc Granulomatosis.** Harrison Farber, MD, R. Paul Fairman, MD, Frederick L. Glauser, MD, *Richmond.*

The IV injection of dissolved Talwin® (pentazocine) tablets can lead to pulmonary hypertension and diffuse interstitial granulomatosis due to the talc present in the suspension. We have previously shown that patients who inject Talwin tablets have, as a marker of the granulomatosis, an increase in serum angiotensin converting enzyme levels and positive lung gallium scans. We studied several additional patients who injected Talwin IV and performed transbronchial lung biopsies and bronchoalveolar lavage (BAL). The biopsy specimens showed talc granulomatosis and the BAL fluid revealed talc crystals when looked at under polarized microscopy. In addition, there tended to be an increase in lymphocytes in BAL fluids. In an additional two patients, right heart catheterization was performed and mean pulmonary artery pressures ($\overline{PAP}$), cardiac outputs (CO), pulmonary vascular resistance (PVR) were determined at rest and following arm exercise. In patient one, the $\overline{PAP}$ increased from 27 to 55 mm Hg, CO increased from 6 to 10 liters/min., and PVR remained stable at 4.1 units. In patient two, $\overline{PAP}$ increased from 11 to 28 mm Hg, CO from 6 to 10 liters/min., and PVR from 1.2 to 1.7 units. Both patients were given 50 mg of hydralazine PO and all parameters repeated, compared to baseline exercise values. The $\overline{PAP}$ decreased

by 30-50% with exercise after hydralazine. We conclude that talc granulomatosis can be diagnosed with transbronchial lung biopsies and BAL. In addition, the exercise-induced pulmonary hypertension can be modified with hydralazine therapy.

**Pulmonary Function Testing in a General Medical Practice.** Steven E. Gentry, BA, Robert H. Hodge, MD, Donald Kaiser, DPH, Frederick B. Walker, MD, and Paul Suratt, MD, *Charlottesville.*

The purpose of this study was to examine the relationship between smoking habits, respiratory symptoms and screening pulmonary function tests in 354 randomly selected patients attending a general medical outpatient clinic. Each patient answered a standardized respiratory questionnaire and performed pulmonary function tests using an electronic spirometer. These studies required approximately 7 minutes and cost 95 cents per patient. Former smokers who stopped smoking because of symptoms had the highest prevalence of abnormal (more than 2 SD below normal) pulmonary function tests (71%, $P < .005$). Abnormal pulmonary function tests were more common in current smokers (53%) and former smokers who stopped for reasons other than symptoms (47%) than in lifelong nonsmokers (34%, $P < .005$). Of the current smokers, 22% were asymptomatic yet had abnormal pulmonary function tests. We conclude that screening pulmonary function tests performed in an outpatient clinic are rapid, inexpensive and can be used to demonstrate early abnormalities of respiratory function to physicians and their patients.

**Toxic Shock Syndrome in Virginia.** Donald M. Poretz, MD, *Fairfax.*

Six patients with toxic shock syndrome (TSS) are described. All cases involved women between the ages of 13 and 24 who were menstruating and using various brands of tampons. Five of the cases were seen between June and September 1980, while one patient was retrospectively diagnosed after having been evaluated on three occasions in 1976 because of an unexplained fever and toxicity. All patients were acutely ill at the time of presentation. Major symptoms included myalgias, headache, nausea, vomiting, diarrhea, sore throat and disorientation. Positive physical findings included high fever, conjunctivitis, a "sunburn rash", muscle tenderness, nonspecific abdominal pain and hypotension. A characteristic desquamation of the finger tips occurred several days after illness began. Laboratory studies showed a WBC count that ranged between 10,000 and 22,000 with a marked left shift; thrombocytopenia; elevated BUN and creatinine; abnormal liver enzymes; elevated CPK, and hypocalcemia. Five of six patients had *S aureus* isolated from vagina or cervix. Treatment consisted of aggressive fluid replacement and a beta-lactamase-resistant antibiotic. All patients recovered completely, although one patient required hemodialysis. There have been no recurrences in any of the six patients. The cause of TSS is postulated to be a heretofore undefined toxin produced by *S aureus.* Tampons may act as a cofactor but other agents may also be responsible for the production of such a toxin. Suggestions are given for tampon usage.

**Aortic Aspergilloma: An Unusual Cause of Supra-Valvular Aortic Obstruction.** Joseph Robbins, MD, P. K. Mohanty, MD, L. B. Mohanty, MD, *Richmond.*

Open heart operations, especially valve replacement, have been vulnerable to complications by fungal infections. However, aspergilloma of aortic root after aortocoronary bypass surgery has not been described. The purpose of this report is to present briefly the clinical and pathologic features of such a case.

A 60-year-old man with three vessel coronary artery disease had bypass graft surgery in October 1978. Fourteen months after surgery, he was hospitalized with acute pulmonary edema following a two-week history of increasing angina, angina decubitus and severe orthopnea. Examination revealed the patient in marked respiratory distress and diaphoresis. Pulse rate 120/min, B.P. 160/90 mm Hg, Respiration 36/min and temperature of 101°F. Cardiac auscultation noted a new grade 4/6 harsh systolic and a grade 3/6 early diastolic descrescendo murmur. Results of numerous routine blood cultures were normal. Shortly after admission, he required endotracheal intubation. The usual medical regimen and mechanical ventilation resulted in rapid improvement, and he was extubated the next day. On the fourth hospital day, he suddenly complained of not feeling well, became confused with onset of hypotension and ventricular fibrillation. Resuscitation attempts failed. At necropsy, a large thrombus containing *Aspergillus* occluded the aortic root orifice above the aortic valve. The valve leaflets were normal and free from the mass that originated from the posterior aortic wall. Two aortotomy ostia for bypass grafts, as well as the vein grafts, were patent. Detailed examination of myocardium and vein grafts did not show any *Aspergillus* invasion. It seems most likely that *Aspergillus* contamination occurred at the time of surgery.

**Invasive Aspergillosis in an Immunologically Uncompromised 33-Year-Old.** J. Allen D. Cooper, Jr.,

MD, Thomas Aldrich, MD, David Weinbaum, MD, and Gerald L. Mandell, MD, *Charlottesville.*

A 33-year-old man with no discernible immunologic defect developed invasive aspergillosis (secondary to *Aspergillus flavus*) involving both the pericardium and lung. The patient was started on intravenous amphotericin B, with partial regression of his pulmonary infiltrate and disappearance of symptoms. However, five months later he returned with marked progression of his disease. Workup for any predisposing factors was once again negative but significant findings were the presence of eosinophilia, markedly elevated IgE levels, positive immediate skin tests to all *Aspergillus* antigens and a negative delayed skin test to *A flavus* (with control *A fumigatus* skin test positive). The patient was given an additional amount of amphotericin with marked improvement in symptoms and roentgenogram appearance. At 3-month followup period he remains asymptomatic with a stable radiograph appearance.

This is the first reported case of invasive aspergillosis in an uncompromised host less than 40 years old and the only case of aspergillosis pericarditis reported in a non-immunosuppressed host.

**Asphyxiation Due to Macroglossia Associated with Severe Hypothyroidism.** Zarine Mistry, MD, James Ross, MD, James P. Baker, MD, and Herschel L. Estep, MD, *Norfolk.*

The previously reported cases of respiratory failure in hypothyroidism have been due to altered ventilatory drive, impaired function of the respiratory muscles, obesity or some combination of the above usually in association with myxedema coma. We report a case of hypothyroidism without coma who had respiratory failure due to upper airway obstruction secondary to marked macroglossia. A 74-year-old woman and member of a family with Hashimoto's disease was transferred to the Medical Center Hospitals because of respiratory distress due to an enormous tongue that filled her mouth and pharynx. Although alert initially, she deteriorated rapidly, and became hypoxic and hypercapneic. Following placement of an endotracheal tube she improved. However, numerous attempts at extubation were unsuccessful because the large tongue repeatedly asphixiated the patient. Following a tracheostomy she then did well for a time but ultimately died secondary to a cerebral infarction. An investigation of the family revealed seven cases of overt and/or biochemical hypothyroidism over three generations but no other member had either macroglossia or respiratory problems.

Conclusion: Marked macroglossia may be a cause of upper airway obstruction in hypothyroidism. A tracheostomy may not only be life saving immediately, but will be required during recovery from myxedema in such patients.

**Respiratory Failure Following Percutaneous Cordotomy.** R. Crystal Polatty, MD, Kevin R. Cooper, MD, *Richmond.*

Ondine's curse—adequate ventilation while awake, with respiratory failure developing during sleep—has been reported as a complication of high cervical cordotomy. We report here a patient with persistence of Ondine's curse following a right $C_1$-$C_2$ percutaneous stereotaxic cordotomy (RPSC) requiring mechanical ventilatory support for more than 6 weeks. The patient is a 33-year-old woman with chronic pain of uncertain etiology who required cordotomy for unremitting left arm and neck pain. She had previously had numerous neurosurgical procedures including a left $C_{1\text{-}2}$ PSC, a right open $T_2$ cordotomy, a $C_{1\text{-}2}$ posterior myelotomy. She has a history of smoking cigarettes and has chronic bronchitis but spirometry and fluoroscopy of her diaphragms were normal prior to the RPSC. After the RPSC she became dyspneic and required intubation and mechanical ventilation because of acute respiratory acidosis. She also experienced transient paralysis of the right hemidiaphragm which resolved within 3 weeks. Since her third postoperative day, she has been able to breathe adequately while awake but after 6 weeks still develops severe hypercapnea and hypopnea during sleep unless supported by mechanical ventilation. This is the first report of prolonged Ondine's curse following cordotomy with survival greater than 3 weeks. The exact mechanism of this disorder is unknown, but it is postulated to be due to disruption of pathways of the reticular activating system at the cervical cord level. The patient is rendered susceptible to apnea during sleep or with hypnotic drug usage.

**Evaluation of Decreased Flow Rate in Chronic Intermittent Peritoneal Dialysis.** Patrick Doody, MD, Marvin Goldberg, MD, and Duane G. Wombolt, MD, *Norfolk.*

Chronic intermittent peritoneal dialysis with 2-liter exchanges per 30 minutes is an accepted mode of therapy for patients with end-stage renal disease. Studies have shown that clearance of uremic solutes is dependent upon two factors: first, the total flow rate of dialysate per hour and second, length of dwell time for solute exchange across the peritoneal membrane. Increased dwell time and increased flow rate both promote solute clearance. Flow rates of 4 liters

per hour have been recommended in CIPD because this is the maximum tolerated flow rate yielding the greatest clearance of solute per minute.

Because additional studies have shown that solute equilibration has not reached plateau phase during the 15-minute dwell time of conventional dialysis, we began a study of increased dwell time with decreased flow rates. Six patients were studied for a two-month control period of 4-liter per hour dialysis during which time their weight, serum electrolytes, creatinine, and BUN were followed. These patients were switched to a 2-liter per hour dialysis with the dwell time extended to 45 minutes, effecting a 50% reduction in flow rate. Followup determinations of serum electrolytes were unchanged with minimal differences in BUN, creatinine and weight loss per dialysis. This preliminary study has encouraged us to explore the possibility that decreased flow rates may be effective in chronic intermittent peritoneal dialysis, with significant reduction in cost of CIPD.

**Cutaneous Histoplasmosis in Renal Transplant Patients: Case Report and Review of the Literature.** Barry M. Farr, MD, Bruce Beachman, MD, and Nuzhet O. Atuk, MD, *Charlottesville.*

The medical literature was reviewed concerning the frequency of cutaneous manifestations of disseminated histoplasmosis following the presentation of a renal transplant patient to our hospital with histoplasma cellulitis as the first sign of disseminated disease. A computer-assisted bibliographic search was undertaken.

Skin lesions have been reported rarely with histoplasmosis, including disseminated disease. The incidence in immunocompromised hosts in a recent review was also low—4 of 54. By contrast, 7 of the 16 renal transplant recipients reported with disseminated histoplasmosis had been noted to have skin lesions. Four of these patients had cellulitis resembling our patient's presenting symptom. Adding our patient to this group yields a total of 17 patients with 11 deaths (65% mortality) and eight cases of cutaneous presentation (47%). Four of the six survivors had skin lesions allowing early biopsy diagnosis and curative amphotericin B therapy.

Skin lesions (especially cellulitis) are a common presenting symptom (47%) in renal transplant recipients with disseminated histoplasmosis. This frequently fatal disease can be cured with early amphotericin B therapy. Skin biopsy should therefore be considered early in the management of a transplant recipient with cellulitis.

**Idiopathic Retroperitoneal Fibrosis (IRF) with Plasma Cell Interstitial Nephritis.** Hank Drews, MD, Barry Kirschbaum, MD, *Richmond.*

IRF may present as a localized sclerosing process or as part of a systemic disease featuring vasculitis, progressive sclerosis of multiple sites, hyperglobulinemia and glomerulonephritis. An autoimmune etiology has been proposed. This report describes a 67-year-old man seen initially because of adult onset diabetes mellitus. Proteinuria predominantly of $\kappa$ and $\lambda$ light chains, anemia and renal failure led to hospitalization for a presumed plasma cell dyscrasia. Bone films showed no lytic lesions, bone marrow biopsy was normal. Serum protein electrophoresis revealed a total protein of 8.0 g/dL with 3.4 g/dL albumin and 3.2 g/dL $\gamma$-globulin with a diffuse profile. Quantitative Ig's as mg/dL: IgA 161, IgM 71, IgG 2760 with the IgG predominantly, but not exclusively, $\kappa$-chain. Cryoglobulins, FTA-ABS, rheumatoid factor, ANA were negative. $C'_3$ and $C'_4$ were reduced to 35% and 2% of normal, $C_1q$ binding was elevated at 15%. Ultrasound and retrograde catheter studies of the kidneys revealed a bilateral obstructive pattern consistent with retroperitoneal fibrosis. At surgery, both ureters were enmeshed in dense fibrous tissue. No tumor was present. Biopsies from the retroperitoneum and right kidney showed heavy cellular infiltrates with large numbers of plasma cells. Features of this case raise the possibility of an early silent phase of IRF marked by a cellular reaction and serologic abnormalities. These features may largely regress by the time symptoms of obstruction or renal failure become manifest. Differences in the intensity of the immune response may underlie the varied clinical presentations of this disorder.

**Rocky Mountain Spotted Fever with Rhabdomyolysis and Respiratory Failure.** Douglas L. Mayers, MD, and D. Lynn Morris, MD, *Charlottesville.*

An atypical presentation of Rocky Mountain spotted fever (RMSF) with severe rhabdomyolysis, obtundation and a delayed rash has been described rarely. We describe a similar case in which respiratory failure also developed on appropriate antibiotic therapy.

The patient was a 31-year-old white male construction worker who presented with a seven-day history of headache and cough progressing to high fever and delirium. On the day PTA, a rash appeared on his palms and soles and oral tetracycline was started. On admission, his temperature was 39.9, blood pressure 102/64, pulse 150, respirations 28. Skin revealed

multiple petechiae, purpura and digital ischemia. Severe pharyngitis was present. His chest was clear. Neurologic exam was non-focal. Laboratory exam showed: hematocrit 44.5, WBC count 8000, platelets 15000, sodium 124, bicarbonate 10, SGOT 610, SGPT 138, LDH 2501. Blood gas revealed $pO_2$ 75, $pCO_2$ 18, pH 7.49, 21% $O_2$. CXR was normal. In spite of intravenous chloramphenicol, on day two the patient became increasingly confused and developed respiratory distress with $pO_2$ 71, $pCO_2$ 40, pH 7.21, 35% $O_2$ and required intubation. His CPK was 4902, aldolase 34.7 (normal 1.2-7.6). Urine myoglobin was positive. The patient was extubated on day 5 and discharged on day 13. His RMSF complement fixation titer rose from less than 1:8 to greater than 1:1024.

**Trichorhinophalangeal Syndrome: Case Report.** Shaheda Qaiyumi, MD, and E. C. Toone, MD, *Richmond.*

K. R. was seen at McGuire Veterans Administration Medical Center, Richmond, with complaints of polyarthralgia and myalgia. These complaints had existed since childhood with no major disability. Examination demonstrated a bald 53-year-old Caucasian male, 150 cm tall, with a bulbous nose, small jaw, sparse eyebrows and a high arched palate. The musculoskeletal examination demonstrated dorsal kyphosis, short fingers with thickened proximal interphalangeal joints, ulnar deviation of the second and third fingers of both hands, flat feet with lateral deviation of first toes. The other joints showed no significant abnormality. The radiological examination revealed a dorsal kyphosis, lumbar lordosis, cone shaped epiphyses of the middle phalanges of all fingers and the first phalanges of all toes. The ulnar styloids were absent. Two daughters had similar physical findings and several other family members had premature baldness, brittle hair, bulbous nose and arthritis.

In our opinion, the association of the unusual hair, nasal and finger changes in this patient with similar changes in several family members, warrants the diagnosis of trichorhinophalangeal syndrome Type I, a familial disease with a dominant inheritance pattern. The classification of Type II of this syndrome warrants consideration on the basis of his spinal deformity and arthritis. This is extremely rare and only seven cases have been reported.

**Clinical Evaluation of Cefotaxime Therapy of Infections in Hospitalized Patients.** C. J. Schleupner, MD, M. L. Stephens, MD, and J. C. Engle, *Salem.*

The efficacy and safety of cefotaxime (CTX) were studied during the therapy of infections in 36 patients (mean age 61 years) with various underlying disorders. The etiologic agents and their minimum inhibitory concentrations (MIC) for 21 pneumonias were pneumococci (11, mean MIC = .11 μg/ml.), *H influenzae* (6, mean MIC = .04 μg/ml.), and *S aureus* (MIC = 2 μg/ml.), *Klebsiella pneumoniae* (MIC = 0.06 μg/ml.), *K oxytoca* (MIC = 0.03 μg/ml.), and *Enterobacter agglomerans* (1 each). Most episodes of pneumonia were treated with 1 gm. Q4h for 7 days. All pneumonias resolved except for three; all patients who failed therapy died with superimposed *Ps aeruginosa* pneumonia (resistant to CTX) and had serious underlying disease.

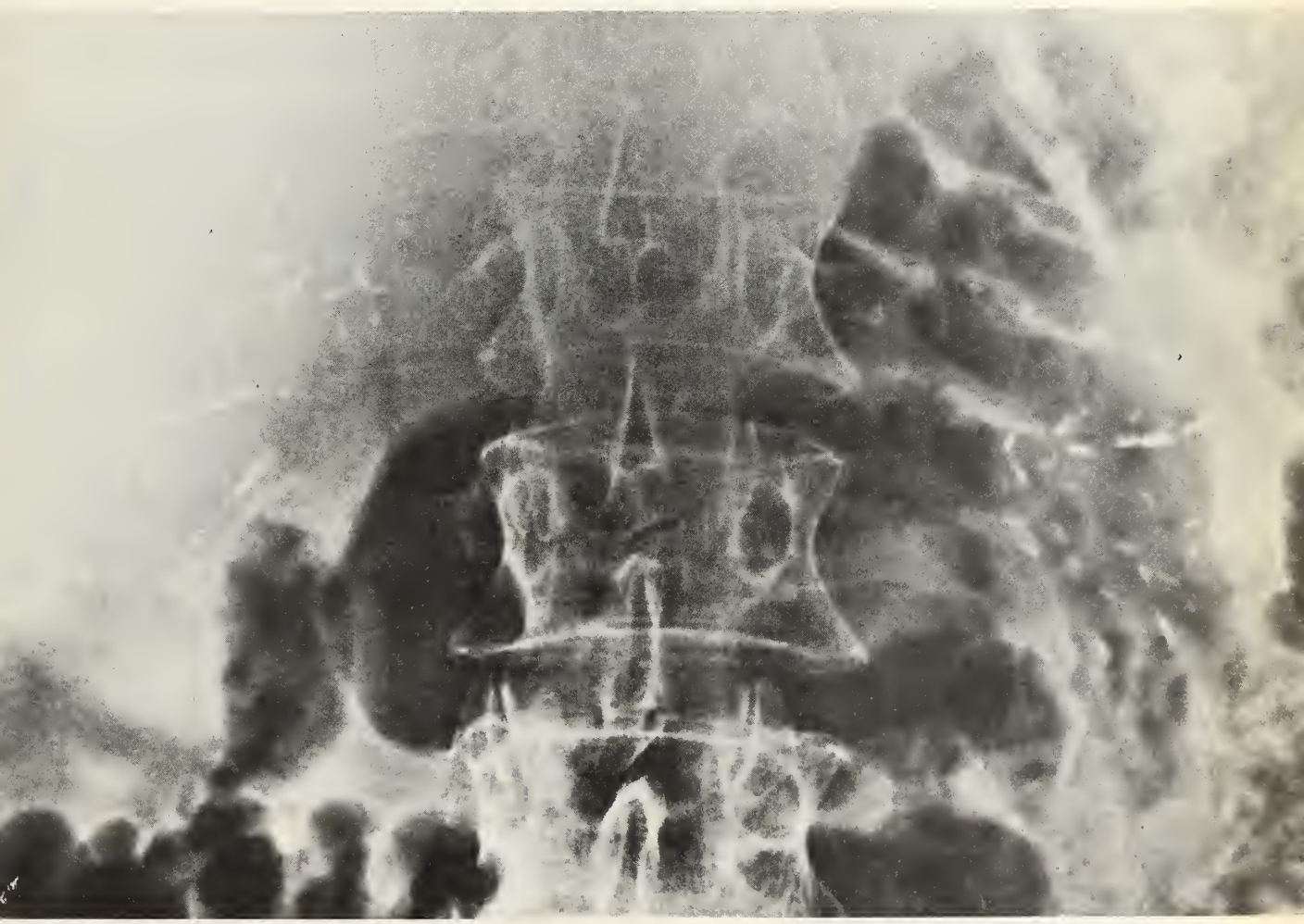
Fifteen patients were treated with CTX for other infections: urinary tract infection (7), cellulitis (5), pulmonary abscess (2) and severe bronchitis superimposed on a chronic asperigilloma (1). Etiologic agents were *Staphylococcus sp* (5), *E coli* (4), and a beta hemolytic streptococcus, *H influenzae, P mirablis, S marcescens, Ps fluorescens, C freundii* and mixed anaerobes (1 each). MIC's for all organisms were $\lesssim$8 μg/ml. All patients responded to therapy except for two patients with complicated UTIs who relapsed one week after therapy.

Among these 36 patients, no other serious complications developed. CTX serum levels were adequate during the therapy of all patients. CTX appears to be safe and effective for the therapy of various infections, but the risk of superinfection with *Pseudomonas sp* requires further observation.

# Can You Diagnose This?

A medical puzzle prepared by
Thomas L. Pope, Jr., MD, *Charlottesville, Virginia*

This is a preliminary film for an intravenous urogram on a hypertensive, 56-year-old man recently operated on for an abdominal aneurysm. Serum glucose was normal, and there was no history of diabetes mellitus.



DIAGNOSIS/DISCUSSION NEXT PAGE

## Diagnosis

Diffuse intrarenal arterial calcification.
Subsequent intravenous urogram was normal.

## Discussion

Intrarenal arterial calcification is seldom of such degree as to be seen on conventional plain radiography. In a composite study of 210 patients by Mortenson et al, only four had calcification recognizable roentgenographically. No underlying etiology for this finding was suggested.[1]

There are two primary diagnostic possibilities for such severe calcification. Longstanding diabetes mellitus causes widespread vascular calcification and on rare occasions may produce this radiographic picture. Five cases reported by Seshanarayana and Keats in 1970 had had diabetes mellitus for over 16 years.[2]

Diffuse severe arteriosclerosis, the presumed cause in this case, can rarely give the radiographic appearance of intrarenal arterial calcification. Most authorities feel that calcification of the medial wall of the vessel (Monkeberg's disease) is more likely to result in radiographically demonstrable calcification than the initimal calcification characteristic of atherosclerosis.[3]

While the radiographic pattern is unusual, its discovery is suggestive of only two primary diagnostic possibilities: diabetes mellitus and atherosclerosis.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2. Seshanarayana KN, Keats TE: Intrarenal arterial calcification: Roentgen appearance and significance. Radiol 95: 145-147, 1970
3. Salik JK, Abeshouse BS: Calcification, ossification and cartilage formation in the kidney. Amer J Roentgen 88: 125-143, 1962



From the Department of Radiology, School of Medicine, University of Virginia, Charlottesville VA 22908.



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# ABSTRACTS

*These are abstracts of papers presented at the annual meeting of the Virginia Society of Ophthalmology and Otolaryngology on May 7-10, 1980, at Williamsburg.*

**Lateral Pharyngeal Diverticula.** R. Jack Eastham, III, MD, *Charlottesville.*

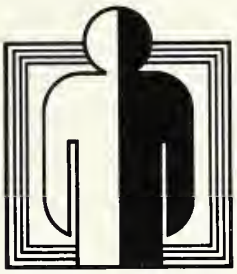
Until several years ago, true lateral pharyngeal diverticula were considered rare, with only approximately 20 cases reported in the literature. But with the newer rapid sequence contrast techniques for the hypopharynx and esophagus, lateral pharyngeal pouches and diverticula are being diagnosed more frequently. One recent article reported 24 patients with acquired pharyngoceles of the hypopharynx within a 3-year period. Because of the recent increase in cases, there has been confusion concerning the definition and classification of lateral pharyngeal protrusions and diverticula. Six new cases of lateral pharyngeal diverticula are presented, with a discussion of the classification, the pertinent anatomy and embryology, and a review of the symptoms, physical findings, diagnosis and treatment.

**Surgical Management of Deteriorated Accommodative Estropia.** Earl R. Crouch, Jr., MD, *Norfolk.*

The amount of surgery to be performed in 28 patients was determined by the amount of Fresnel prism required to neutralize the estropia and/or to make the patient exotropic.

**Congenital Fibrosis Syndrome.** Earl R. Crouch, Jr., MD, *Norfolk.*

Two patients, mother and child, with congenital fibrosis syndrome are presented. The classical findings were ptosis, hypotropia, positive forced ductions and fibrous infiltration of extraocular muscles.

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VIRGINIA MEDICAL

# EDITORIAL

## Careful, President Reagan: There's a Baby in the Bathwater

PRESIDENT Reagan established a Health Policy Advisory Group last summer while he was still campaigning. Since his election this Group has been expanded, and its positions are being formulated. The Health Policy Advisory Group is headed by Dr. William B. Walsh, who formerly directed Project Hope, and includes other well-known, dedicated physicians.

The Health Policy Advisory group has recommended the adoption of several points contained in the proposed Gephart-Stockman National Health Care Reform Act (HR 5727), which emphasized deregulation of the health care industry. For instance, the Group recommends that a system be devised enabling a person covered by Medicare or Medicaid to choose each year from competing carriers the insurance plan he wishes to use. The idea is that the government will pay the premiums, and the private carriers will police the industry for fraud, which amounts, the Group believes, to billions of dollars annually.

The Health Policy Advisory Group has recommended another point from the Gephart-Stockman Act which bears dissection, namely, to do away with professional standards review organizations, health systems agencies and other regulatory bodies.

The lumping together of PSROs and HSAs is unfortunate, for they are dissimilar agencies with entirely different roles. Professional standards review organizations were established by physicians to evaluate the quality of medical care. Their mission is to list standards and quantitate them, thereby making possible a comparison of health care methods and procedures. The information developed by PSROs is not intended for cost-saving purposes per se, but it is valuable to help assess the most effective use of Medicare and Medicaid funds and is increasingly being used by private carriers for the more effective use of their dollars.

The fact that the PSRO is run by physicians has brought it under the scrutiny of the Internal Revenue Service and the Federal Trade Commission. Court actions have established its identity as a non-profit organization managing health care information in strict confidence.

It has taken six years of intensive, difficult work by physicians to put the PSRO into operation. It is still very young and, in reality, is only beginning to show that it can accomplish its mission.

Health systems agencies, on the other hand, were set up by the National Health Planning and Resources Development Act of 1974 for the purpose of making recommendations for controlling the development of health care facilities on the local level. Consumers as well as providers sit on the boards of these agencies and participate in developing recommendations, which are then accepted or denied by a state health commissioner. At all levels there is a strict imposition of federal authority.

There are conflicting reports as to whether or not

the whole health planning network, of which the HSAs are the centerpiece, is effective. It is my view that we can do without HSAs very well.

Quality evaluation is an essential part of effective medical care delivery. It does not matter which system of delivery is used; comprehensive national health insurance must be evaluated by the same techniques as a system operated entirely by private-sector, third-party insurers. Quality assurance is not rhetoric; indeed, the market place demands it. The American Medical Association now takes the position that PSROs are valuable and enlists the support of its members in their continuance.

We hope that President Reagan will insist on a health care delivery system administered completely by the private sector. A physician-run PSRO is essential to this concept.

WILLIAM W. S. BUTLER, III, MD
1234 Franklin Road, SW
Roanoke VA 24016

# Fifty Years of House Calls

AFTER graduating from the Medical College of Virginia in 1926, I took one year of rotating internship, then entered general country practice and have been making house calls ever since. I entered the profession a little too late to perform surgery on the kitchen table or pull teeth in the patient's home, but some of my older colleagues were still traveling by horse and buggy.

My first house calls were made with a Model T coupe. This was the "prettiest" car I have ever owned—one of the last of that 1927 model to roll off the Ford Assembly line, with shiny wire wheels and chrome radiator. But roads were bad in those days and it was impossible to reach some of the mountain homes by car, so I would drive as far as possible and then be carried in on a horse, farm truck, tractor—— or just tote my little black bag and walk in via a cow path. I made calls to see one mountain couple by driving to the top of the mountain and then walking down a logging path through rugged terrain. When the weather was cold and the trip was at night, my safety depended on a flashlight; darkness could have resulted either in falling over a precipice or wandering aimlessly and freezing.

My automobile was unpredictable—a tire might be flat when a rush call was waiting. It was not uncommon to mire in axle-deep mud and have to jack the car up and fill the ruts with fence rails or large stones in order to get the car out. In some of the early automobiles, the batteries were slung under the front floorboards. When large rocks had been pitched into the ruts to make traveling possible, it was easy for a vehicle to climb up on one of these rocks, drop forward and land squarely on the battery; the battery would push up through the floor, with both poles broken off—and no way out except by being pulled out. I had this to happen to me twice within one week.

There was no antifreeze in the early days, and it was quite troublesome to drain the radiator every time a long call was made. Then drivers started using wood alcohol. This helped, but a few mud-road calls would boil the alcohol out. I grew tired of buying another gallon of alcohol each morning and found a way to prevent it. I put an extra gasket under the radiator stopper and connected a rubber tube to the

**The author was joined by a young friend for this snapshot of "the prettiest car I ever owned", a 1927 Model T Ford in which he made his first house calls. Behind him is his first boarding place.**

overflow pipe, extending it along the frame of the car to the trunk. There I connected it to a section of copper pipe, which I passed through the vented stopper of a gallon glass bottle. When the radiator boiled, the alcohol vapor traveled back into the bottle, hit the cold sides, condensed and flowed to the bottom. It was a perfect "air cooled" still. All I had to do was to pour it back into the radiator—and use it over and over again as I made my house calls.

I did home obstetrics for about 30 years. These calls usually came at night and often during the most unpleasant weather. I delivered hundreds of babies in the best of country homes and in humble mountain shacks. I did these deliveries on my own—even forceps cases—with only a grandmother to assist me. I worked out a pretty good system of carrying my regular medical bag, an obstetrical bag and a lightweight folding obstetrical table of aluminum that was equipped with straps, stirrups, its own electric lighting system and a rubber sheet with inflated edges. My system of giving anesthesia consisted of a small cylinder loosely strapped to the patient's wrist so that she could adminster the anesthesia to herself. When unconsciousness began to take effect, her grip relaxed and the cylinder fell from her hand; when more was needed, she could swing it to her nose. There was no way a patient could get an overdose by this method.

I was called on one bitter cold night to attend a patient who had not had any prenatal care. Her home was a mountain cottage in the woods, nearly a mile from any means of transportation. The trail, once a wagon road, had grown up in saplings and trees so close together no vehicle could get through. The expectant father met me with a lantern, and we walked in. I found the lady trying to give birth to twins and unconscious with eclampsia. It was a serious case and hospitalization would be necessary to save the mother and the two babies——but how were we to get her out? One neighbor went to the nearest telephone to call an ambulance to come in as close as possible, while another neighbor brought his narrow, homemade sled with a deep "goods box" nailed on top for hauling fire wood. We hitched a horse to this contraption, lined the box with quilts, doubled the patient up into the box, and set out, one man guiding the horse through the widest spaces among the trees and two of us helping the sled along. The patient had not uttered a word during my call, but when the sled pulled up over a large rock and fell with a heavy thud, she said, "Ouch! Someone's shakin' the damned bed!" We got her to the nearest hospital, and mother and babies lived and did well.

The telephone system in the early days consisted of wall-type, magneto telephones with cranks. Switchboards were located in five private homes scattered over the county. These operators were kind and helpful in giving directions about country calls—sometimes too helpful. Once, at about 2 o'clock in the morning, I was awakened by my ring from an operator ten miles away. He was calling me to see one of his neighbors, and I still remember his odd way of giving directions. "They want you to make a call to see John Phillips," he said. "You know the road that goes to the left from my house? And it passes Mr. Reed's house on the left? And you know a big house sets on the right bank, just across the creek?" When I had answered "yes" to all these questions, he paused a moment and then said, "You don't go that way. You take the right road from my house and the Phillips home is the second one on the right."

Things have changed a lot in the last 25 years. We now have a modern dial telephone system. The old crank phones are found only in antique shops or have been left on walls as souvenirs. The roads and highways are nearly all paved. Almost every family has one or two automobiles. A well-equipped rescue squad has five ambulances, and eight good hospitals in neighboring towns are close enough to receive our serious patients within 30 minutes to an hour.

One by one, my colleagues have stopped making house calls, but I still carry my black bag and see patients in their homes, sometimes as far as 20 miles from my office.

F. CLYDE BEDSAUL, MD

Box 115
Floyd VA 24091

Other reminiscences of the author appeared in VIRGINIA MEDICAL for November 1976 under the title "Rural Medicine Then and Now", and a biographical novel of his writing, *Spring Valley,* was published in 1975 by Commonwealth Press, Radford, Virginia.

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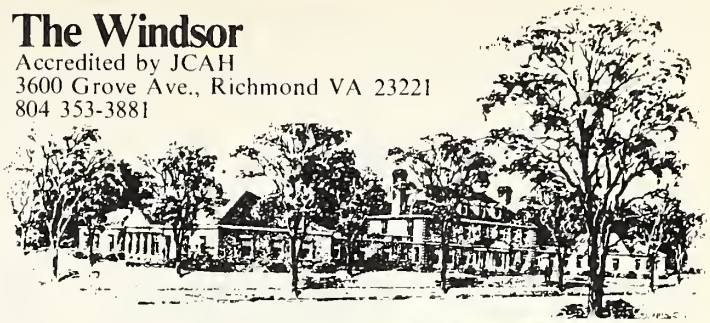

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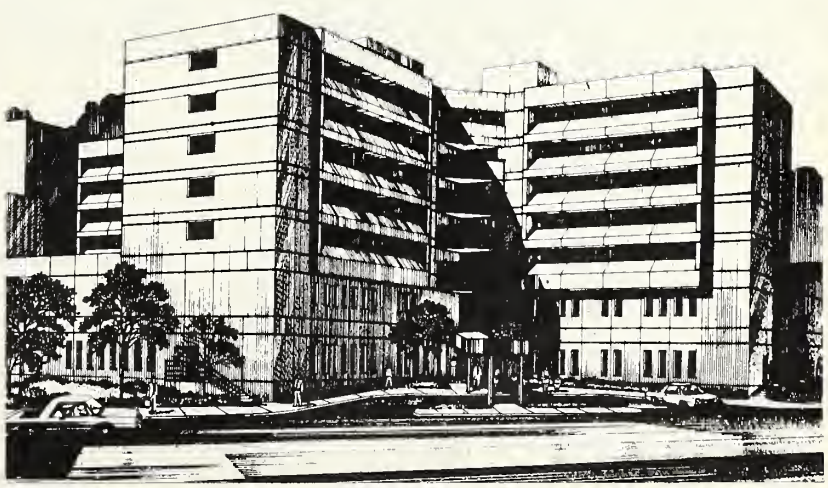

# VIRGINIA MEDICAL OBITUARY

## Warren W. Koontz, Sr., MD

Dr. Warren Womack Koontz, Sr., 82 years old, died November 1 at his home, Marlbrook Farm, near Glasgow, Virginia. He was a past president of the Virginia Urological Society.

A lifelong Virginian, Dr. Koontz earned his doctorate in medicine at the University of Virginia; studied at the post-graduate level in several European clinics; and practiced urology in Lynchburg from 1930 until his retirement in 1971. He has been a member of The Medical Society of Virginia for 48 years.

A son, Warren W. Koontz, Jr., MD, is chairman of the Department of Urology at the Medical College of Virginia.

## Warren C. Marshall, II, MD

Dr. Warren Clark Marshall, II, 36-year-old Fredericksburg physician, was killed on November 26, 1980, when his single-engine aircraft crashed near East Berlin, Pennsylvania. His wife and 9-year-old daughter died with him. The family was said to have been flying from Fredericksburg to Milton, Pennsylvania, about 50 miles north of the crash site, to spend Thanksgiving with Mrs. Marshall's parents.

Dr. Marshall, a plastic surgeon and member of the medical staff at Mary Washington Hospital in Fredericksburg, was a graduate of the George Washington University School of Medicine in Washington, DC, and came to membership in The Medical Society of Virginia through the Fredricksburg Area Medical Society.

## Charles Willmarth, MD

Dr. Charles Willmarth, Newport News, died July 19, 1980, at the age of 62. A graduate of the New York University School of Medicine, Dr. Willmarth served with the United States Air Force from 1951 to 1974. His memberships included the American Urological Association, American College of Surgeons, Association of Military Surgeons of the United States, American Association of Public Health Physicians and American College of Preventive Medicine.

## Neilson H. Turner, MD

Dr. Neilson Hampden Turner, Richmond, who had been a member of The Medical Society of Virginia for 60 years, died December 1, 1980, in a Richmond hospital. He was 88.

A 1919 graduate of the Medical College of Virginia, Dr. Turner specialized in ophthalmology and otorhinolaryngology, retiring from his private practice only three years ago. He came to Medical Society of Virginia membership through the Richmond Academy of Medicine and belonged also to the American Medical Association.

## Brooke M. Moffett, MD

Dr. Brooke M. Moffett, Norfolk, died September 5, 1980, at the age of 58. A graduate of the Medical College of Virginia, he had been a member of The Medical Society of Virginia for 27 years and belonged also to the American Academy of Family Physicians.

## William F. Delaney, MD

Dr. William Francis Delaney, Hampton, died November 4, 1980, at the age of 38. An orthopedic surgeon, Dr. Delaney was a graduate of the Hahnemann Medical College of Philadelphia and served with the US Army from 1970 to 1973. He came to membership in The Medical Society of Virginia through the Hampton Medical Society.

# Memoir of P. H. Drewry, Jr. 1907-1980

*By Merritt W. Foster, Jr., MD, George S. Fultz, Jr., MD, and James B. Funkhouser, MD*

In the annals of medicine there are three primary phases of endeavor, namely, those who treat, those who teach, and those who discover. Pat Drewry was a damn good teacher. One of the first full-time professors at the Medical College of Virginia, he self-

lessly devoted his life to the indoctrination of medical students into the realities of modern-day psychiatry, based on the observable phenomena of Meyerian principles. Openly admitting that he was probably dealing with a group who were already fascinated with the glamour of surgery, he set about in a very patient way to help them understand some of the basics of human personality formation and the aberrations that we know of as mental illness. No finer tribute could be paid to his success than the fact that the Class of 1966 dedicated its annual to him.

When emotional problems disrupted his brother's family life, Dr. Drewry quietly and in his typically unassuming manner undertook the rearing of his two nephews. Illustrations in his lectures were subsequently embellished with "Johnny did this, and Jimmy said that". It was his usual soft-sell manner to convince the most skeptical in everyday terms of the principles of psychodynamic interactions.

A Petersburg native, he was born the oldest son in a distinguished Southside Virginia family whose name endures in Drewry's Bluff, Drewryville, etc. His father, the late Patrick Henry Drewry, represented the 4th District in Congress from 1920 to 1947. Dr. Drewry was a 1928 graduate of Randolph Macon College and earned his Medical Degree from Johns Hopkins University. Interning at the Peter Bent Brigham Hospital in Boston, his psychiatric training was accomplished at Cornell University in the Westchester Division of the New York Hospital where he served as resident from 1934 to 1937. He remained on the active staff for two subsequent years before a Rockefeller Foundation Fellowship carried him to Guy's Hospital in London. He came to the Medical College of Virginia in 1940 as a professor of psychiatry and director of the Psychiatric Outpatient Clinic. He was a diplomate of the American Board of Psychiatry and Neurology and published frequently on clinical psychiatric subjects in the VIRGINIA MEDICAL MONTHLY.

A scholarly, erudite teacher, he possessed an extremely dry wit and disarming shy smile that further reinforced his practical, down-to-earth approach to the field of psychiatry. With no yen for clinical practice or the amassing of this world's goods, his trade off with academia was his free time. This he jealously guarded in a leisurely pursuit of gardening, painting, reading and a quiet life with Thelma, his first wife; and later, Tenney, whom he married a respectable time after Thelma's death. His tastes were plain and simple with a fondness for Bourbon and branch water—occasionally enjoying the old adage that "the man that made it put enough water in it." Following 10 years of retirement spent in Pocoshock, his rural Chesterfield County retreat, Patrick Henry Drewry, Jr., died on April 10, 1980.

He carried to his grave the mark of one of those fateful and soul-searching decisions that we in medicine are called upon to make. While he was on the staff of the New York Hospital, his youngest brother was stricken with lobar pneumonia. The decision was made to prohibit the use of a then experimental drug, Promin, a precursor of the sulfonamides. His brother did not survive.

In another, somewhat lighter vein: when two senior medical students impishly and impulsively subjected each other to an electric shock treatment there was a question that expulsion was in order, for such a display of immature judgment. Dr. Drewry intervened, however, with the comment that if they were that determined to experience that particular form of treatment, they must have needed it.

He was a captain in the Army Reserve when World War II erupted. He was declared essential, and kept from active duty with the 45th General Hospital. Subsequently, however, at his patriotic insistence, he was allowed to serve. His assignment: The US Army Hospital, West Point. He wryly recounted that most of his energies were directed to placating the families of the athletic coaching staff in the Blanchard and Davis era.

Dr. Drewry was a member of the Washington Street Methodist Church in Petersburg and numerous professional organizations including the Richmond Academy of Medicine, the Medical Society of Virginia, the American Medical Association, the Neuropsychiatric Society of Virginia and the American Psychiatric Association. In all candor one would have to say that he rarely, if ever, attended their meetings.

He was a truly great medical educator, whose subtle but very real impact will live on in the life and practice of his countless students.

Prepared and published at the request of the Richmond Academy of Medicine.

# WHO'S WHO IN VIRGINIA MEDICINE

**Dr. James B. Hess** is the new president of the Williamsburg-James City County Medical Society.

**Dr. A. D. Crosett, Jr.**, *Kilmarnock*, is the new president of the Northern Neck Medical Association. Reelected secretary-treasurer to serve with him was **Dr. Norman R. Tingle**, *Lively*, and these also were chosen: **Dr. David L. Harris**, *Irvington*, president elect, and **Dr. John W. Johnson**, *Kilmarnock*, vice president.

Elected president of the Lynchburg Academy of Medicine at a recent meeting was **Dr. R. Terrell Wingfield**, and **Dr. Peter R. Hulich** was elected secretary.

The Rockingham County Medical Society, meeting late in 1980, elected these new officers: **Dr. Gordon O. White**, president; **Dr. Charles H. Henderson**, vice president; **Dr. Paul R. Yoder, Jr.**, secretary; and **Dr. Regis C. Kohring**, treasurer. All practice in *Harrisonburg.*

In the coming April issue, VIRGINIA MEDICAL will publish the annual roster of officers of Virginia's local medical societies.

An editorial by **Dr. Henry S. Campbell,** *Martinsville,* that appeared in the October 1980 issue of VIRGINIA MEDICAL was reprinted recently in *American Medical News.* Under the title "Whose Ox?", Dr. Campbell advocated helmets for motorcyclists as a safety measure. The *News* reprinted it verbatim on its editorial page, with the appropriate credits and an Editor's note saying that the AMA House of Delegates recently endorsed the concept of legislation to require motorcycle helmets and urged constituent societies to support the enactment of state motorcycle laws.

A published poet has been appointed as the Auxiliary's contributing editor to VIRGINIA MEDICAL by the new president, **Mrs. M. Pinson Neal.** She is **Mrs. Vedii Ayyildiz,** *Roanoke,* whose volume of verse, "Smuggled Seeds," appeared in 1979 under the imprimateur of the Gusto Press, New York. The book evolved from Mrs. Ayyildiz's trip to Poland as a representative to the National Alliance of Arts Educators.

**Dr. DuPont Guerry, III,** *Richmond*, was elected second vice president of the American Academy of Ophthalmology at its meeting late last year in Chicago and will serve on the Academy's board of directors.

Fellowships in the American College of Chest Physicians were conferred during the College's recent scientific assembly in Boston on **Dr. George B. Craddock, Jr.**, and **Dr. Harry A. Wellons, Jr.**, both of *Charlottesville.*

These Medical Society of Virginia members have been elected to fellowship in the American College of Physicians: **Dr. Israel D. Goldman**, *Richmond,* and **Dr. James N. Sipes**, *Fairfax.*

**Dr. Ruben T. Benito**, *Stafford*, has been named a diplomate of the American Board of Family Practice.

**Dr. John T. Hearn**, *Penn Laird*, carried off the Challenge Cup, symbol of The Medical Society of Virginia golf championship, with the lowest gross score in the golf tourney at the 1980 annual meeting in Williamsburg. It was Dr. Hearn's second championship; he won the cup over the same course at the 1978 meeting. (The tourney was not played in 1979 at the Homestead because of rain.) Second low gross was chalked up by **Dr. James P. Rotchford**, *Arlington*, and third by **Dr. Gerald C. Burnett**, *South Boston.* Winner of low net was **Dr. Ellsworth J. Stay**, *Arlington*; behind him in second place were **Dr. C. L. Baird, Jr.**, *Richmond*, and, in third place, **Dr. John F. Hannon**, *Falls Church.*

A drawing at the David A. Dyer booth during the meeting yielded these winners of digital clock radios: **Dr. William H. Bandy** and **Dr. Kemper D. Sarrett**, both of *Hampton*; **Dr. Frederick W. Rook**, *Falls Church*; and **Dr. Edward D. Zakaib**, *Richmond.*

**Dr. Gary J. Soverow**, *McLean*, has been appointed director of adult services at Dominion Psychiatric Treatment Center in Falls Church.

**Dr. Thomas H. Hunter**, *Charlottesville*, was given the Society for Health and Human Values Award for 1980 during the society's recent annual meeting in Washington, DC. Founded to promote informed concern for human values in health education, the society counts physicians, nurses and allied professionals among its members. Dr. Hunter, former dean of the University of Virginia School of Medicine, is professor of internal medicine and also the Owen R. Cheatham Professor of Sciences.

**Dr. Josefina B. Magno**, *Arlington*, medical director and one of the founders of Hospice of Northern Virginia, has been named executive director of the National Hospice Organization, headquartered in Washington. For her leadership over the past three years in developing the Northern Virginia program, Dr. Magno has received many honors.

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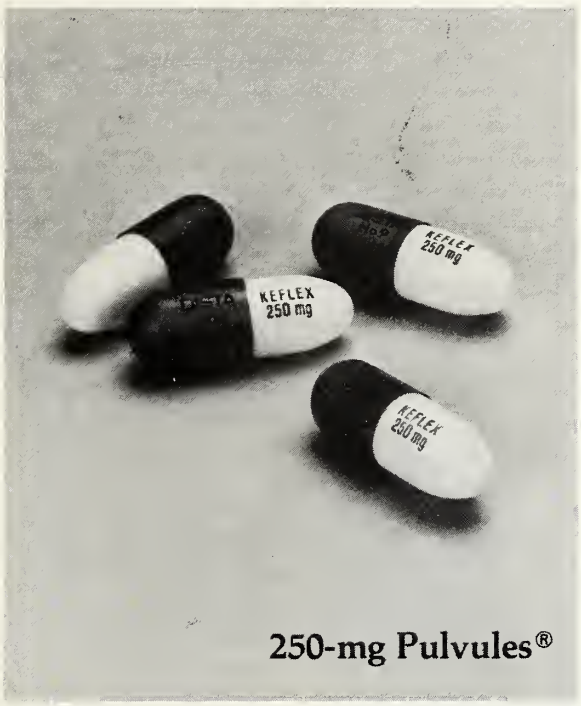

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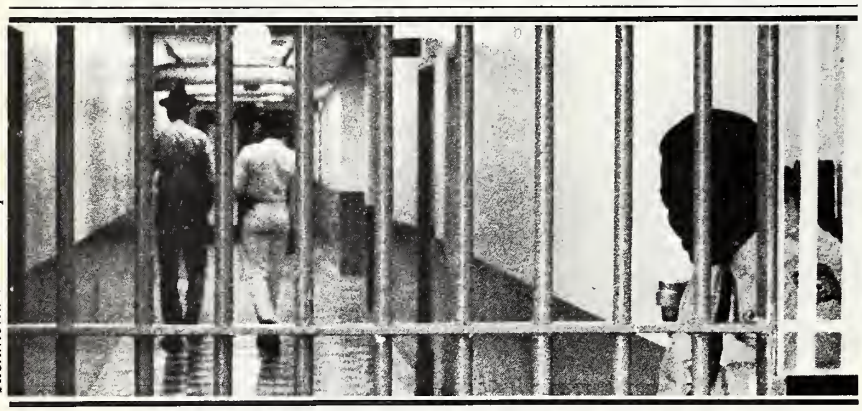
From the VAMEDNE

# How to Help Curb Virginia's Spreading Narcotics Traffic

LIKE a virulent infection, the drug traffic is spreading alarmingly in Virginia, and professionals with the power to prescribe are charged with contributing to it. Since mid-1978, according to regulatory officers, 100 Virginia doctors, nurses, dentists, pharmacists and veterinarians have been disciplined by their licensing boards for violating drug regulations.

Prescription fraud and abuse by physicians has become the Virginia State Board of Medicine's most prevalent disciplinary problem, a spokesman for the attorney general's office says, and arrested addicts tell their interrogators about doctors who, for money or for such an unsavory reward as kinky sex, prescribe for them freely.

These witting accomplices to drug abuse, it should be emphasized, are very, very few and represent the fractional group of deviates found inevitably in every human population. Most of the doctors who fuel the drug traffic are not venally motivated. They drop their vigilance and are conned by drug dealers. They know there's a drug problem but don't stop to think how they may be contributing to it. Or they haven't boned up on state and federal laws regulating the administration of narcotics to drug-dependent persons.



*Richmond Times-Dispatch*

These laws are of intense concern to George J. Carroll, MD, secretary-treasurer of the Virginia State Board of Medicine, and Julia Krebs-Markrich, Assistant State Attorney General appointed to advise the Board of Medicine and prosecute its cases. Dr. Carroll and Mrs. Krebs-Markrich have prepared for VIRGINIA MEDICAL an exposition of the laws of administering narcotics to drug-dependent persons, and they are here presented in language geared to your quick and comfortable reading.

First, the pertinent state regulation:

If, to treat chronic illness or severe injury, you are prescribing narcotic drugs for a patient whom you suspect of addiction, you should report to the Board of Medicine the name of the patient, the type of illness, the type and dosage of the drugs involved, and the reasons for the patient's continued use of the drug. This information is for the record and is also made available to the investigators of the Compliance Division of the State Department of Health Regulatory Boards.

Second, federal regulations. These are embodied in the Controlled Substances Act of the United States Code.

1. If you are a practitioner acting in the usual course of your professional practice, you may issue a prescription for a controlled substance for a legitimate medical purpose. But you may not issue a prescription for any scheduled narcotic drug for the purpose of detoxification or maintenance treatment. Note the difference. Are you prescribing for a specific medical ailment, or for detoxification/maintenance of addiction? Be on the alert for

# MSV BUREAU

## *Council Approves New Foundation and Letter to Reagan*

The Medical Society of Virginia's councilors took these major actions at their meeting January 31. Complete minutes will appear in the April issue.

• Approved in principle the recommendation of Dr. Percy Wootton, MSV President, that a special foundation be established to receive tax deductible gifts and charged the Society's legal counsel with drafting a suitable instrument.

• Referred to the Membership Committee, Dr. Charles H. Crowder, Jr., chairman, the recommendation of Dr. Wootton that house staff residents in Virginia be formed into a component society with such customary privileges as representation in the MSV House of Delegates.

• Assigned to Dr. Richard W. Lindsay, chairman of the Program Committee, and Dr. Kinloch Nelson, MSV director of continuing medical education, the task of developing a scientific session for Wednesday, October 21, prior to the 1981 Annual Meeting, thus expanding the meeting to five days instead of the customary four.

• Set May 13 as the date of this year's congressional luncheon, at which the Society's councilors meet and eat in Washington with Virginia's senators and representatives, and urged MSV members to advise their councilors of their opinions pro and con pending legislation.

• Approved a recommendation from the Vanguard Committee, Dr. Harry C. Kuykendall, chairman, that a letter be written to President Reagan asking for the appointment of a commission to investigate the effectiveness of HSAs and PSROs and the application of a freeze on expansion of these agencies while the study is in progress.

the patient whose professed malady is a subterfuge for addiction needs.

2. In order for you to administer or dispense lawfully any scheduled narcotic drug to a person dependent on narcotics for the purpose of detoxification/maintenance treatment, you must be doing so clearly within the course of your professional practice or research, and you must be registered to do so with the United States Attorney General. This law not only safeguards the qualifications of those engaged in detoxification/maintenance of addicts, but sets a watch over the narcotics provided for unsupervised use in such treatment and narcotic drug stock records.

3. Even though you are not registered with the US Attorney General, as described above, there is an emergency situation in which you may administer narcotic drugs to an addicted person for detoxification/maintenance, and that is when such a person presents with acute withdrawal symptoms. There are strict conditions, however: The treatment must be in the course of referring the person for further treatment. You may administer the drug only; you may not prescribe it. The treatment is limited to a maximum of three days and is not subject to renewal or extension.

4. The care of a hospitalized patient is a different matter. If, as a physician or authorized hospital staff you are treating a person in a hospital, you may administer or dispense narcotic drugs to detoxify/maintain that person as an incidental adjunct to medical and surgical conditions other than addiction. Notice the stipulation "other than addiction." You may also administer or dispense narcotic drugs to hospitalized persons with intractable pain for which no relief or cure is possible or none has been found after reasonable effort.

For the way in which lawyers define the terms used in these controls, see the accompanying box.

Sadly, some of Virginia's narcotics addicts are themselves physicians. This is not surprising, given the long and unpredictable hours most doctors work, the acute pressures that begin in medical school and may continue into practice, and the physician's continuous exposure to drugs.

This problem of the addicted physician has entered the public consciousness along with the overall problem of all drug-addicted persons, and many state medical societies are setting up programs to seek out and help these doctors before they get into serious difficulties. These programs address addiction not only to hard drugs but to the so-called soft drugs, especially alcohol, and also to impairment through emotional illness.

For The Medical Society of Virginia, six members of the Committee to Study the Impaired Physician are investigating the feasibility of such a program under the joint aegis of the

# VIRGINIA MEDICAL

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Society and the State Board of Medicine and are expected to report before the end of the year. Dr. W. Dimmock Buxton, Charlottesville, is the chairman.

TIPS on foiling the ploys with which drug addicts try to extract prescriptions from physicians were given in VIRGINIA MEDICAL's issue of November 1978 in an article by Dr. Duane A. Lawrence of Virginia Beach titled "How I Keep from Being Conned by Drug Abusers." Here are the key points of his advice.

- Watch out when a new patient asks for a specific drug.
- Check the new patient's claim of previous treatment and prescriptions.
- Suspect all stories of lost prescriptions.
- Beware of the "transient" who keeps coming back.
- Ask your staff to alert you to possible phonies.
- Insist on seeing the patient who wants a refill.
- Keep complete records of the number of tablets dispensed and the dosage strength—and consult them.
- Answer telephone inquiries from pharmacists yourself.
- Try to make your prescriptions alteration-proof by giving the number of tablets in writing as well as digits and, in the same way, write "no (none) refills." Lock up all prescription pads but the one you are using. Don't get a rubber-stamp signature.
- Consult with your colleagues about known drug abusers they have encountered.

## *PAC 250 Will Party*

VaMPAC's big givers will be the guests this year of two of Virginia's political biggies, Sen. John W. Warner and Gov. John N. Dalton, who with their wives will entertain members of the PAC 250, the Warners with a cocktail party on April 10 at their Georgetown home, the Daltons with a luncheon on May 14 at the Governor's Mansion. Before the Warner shindig, PAC 250 members will visit Capitol Hill to call on Virginia's legislators. Dr. W. Leonard Weyl, Arlington, is VaMPAC's president.

## *Solidarity USA*

For the first time in their histories, the five neighboring medical societies in Northern Virginia came together late last year for a joint meeting. They are the societies of Alexandria and the Counties of Arlington, Fairfax, Prince William and

### Drug Law Definitions

You *administer* a controlled substance when you directly apply that substance by injection, inhalation, ingestion or any other means to the body of a patient or research subject. You *dispense* a controlled substance when you deliver it to an ultimate user or research subject, including the prescribing and administering, and the necessary packaging, labelling or compounding of the substance. A practitioner who so delivers a controlled substance is a *dispenser.*

*Maintenance* treatment is a period of more than 21 days during which a narcotic drug is dispensed to treat a person dependent on heroin or other morphine-like drugs. *Detoxification* treatment is a period of less than 21 days during which a narcotic drug is dispensed in decreasing doses to alleviate a person's symptoms of withdrawal from drug addiction.

Loudoun. All were well represented by more than 500 physicians and their wives at a gala evening planned by Dr. Leon I. Block of Falls Church and featuring Harry Schwartz, PhD, the noted writer who is partisan to the American medical profession.

## *Ethical Advice Added at UVa Hospital*

To help doctors and nurses deal with the increasingly complex ethical issues in medicine, the University of Virginia has installed a philosopher-in-residence at its Medical Center. She is Haavi Morreim, who completed a doctoral program in philosophy at UVa last August and now attends daily rounds and conferences and participates in staff seminars, commenting on ways to use philosophical guidelines in decision-making.

The program, financed by hospital sources and a Virginia Foundation for the Humanities and Public Policy grant, involves the hospital's nursing service and physicians and residents in the School of Medicine's Departments of Internal Medicine and Family Practice.

Ms. Morreim's advisers are Dr. Thomas H. Hunter and Dr. Oscar A. Thorup, Jr. Says Dr. Hunter, "Most medical centers are struggling to find appropriate ways of bringing the humanities, especially philosophy and ethics, into medical education."

## *Down with Costs!*

As part of a Medical Society of Virginia program to educate the public about what physicians are doing to hold down costs and how lay persons can help in the same cause, thousands of brochures have been placed for distribution in physicians' offices and hospitals in Northern Virginia. The leaflets are similar to those distributed in 1979 by the Fairfax County Medical Society as part of its cost containment campaign (Va Med 106:946, 1979). The program, which includes radio and television announcements and a speakers bureau, was suggested to the MSV Council by Dr. Frederick K. McCune, Virginia Beach, chairman of the Public Relations Commitee, and is backed by the Vanguard Committee, Dr. Harry C. Kuykendall, Alexandria, chairman.

## *For the Record*

Those nice little cards that give parents records of their children's immunizations are being offered once again to Virginia physicians by the Department of Health. There's no charge; simply send your request on your letterhead to the Immunization Program, 109 Governor Street, Richmond VA 23219. Thanks to federal funds, the cards have been standardized nationally, so that if a child moves to another locality, the record presents a familiar aspect to the new physician.

## *Blue Ridge Bonus*

To the renowned tourist attractions of Western Virginia can be added its hospital charges. At an average $228 per day, they aren't exactly cheap, but they are the lowest in Virginia, according to Blue Cross of Virginia. Moreover, they went up only 7% last year, while in Richmond and Central Virginia inflation pushed the daily charge up 20% to a sickening $261.

In the Tidewater area, the same Blue Cross report states, hospital charges now average $283 per day, up 16% from last year, and in Northern Virginia the daily tab increased 15% to $243 per diem.


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# OFFICERS OF THE LINE

*With a series of photographs of their presidents, VIRGINIA MEDICAL salutes the component medical societies, front line of organized medicine in Virginia. This is the third entry in the series.*

WHICH came first, The Medical Society of Virginia or the Richmond Academy of Medicine? A clouded question, that. Clear beyond doubt is that on December 15, 1820, a group of physicians formed a professional organization and named it the Medical Society of Virginia. But all 17 of the founders practiced in Richmond and adjacent Manchester. Did they create the state or the local medical society?

Both, says Dr. H. J. Warthen, Editor Emeritus of this journal, past president of the Richmond Academy, and fount of Virginia medical history. "The Richmond Academy of Medicine and our present state organization had a common genesis," Dr. Warthen writes, "for during the first 30 years of its existence, membership in the Medical Society of Virginia was confined largely to physicians living in the Richmond area."[1]

But the late Dr. Wyndham B. Blanton, whose three-volume history of Virginia medicine has attained biblical status, takes a different view. That first confederation of 17 doctors, he says, flat out, "was in reality Richmond's local association" and "it was 1870 before a statewide society in any sense worthy of the name came into being."[2]

Whichever opinion you subscribe to, you have to salute the Richmond Academy of Medicine as the prototype component medical society in Virginia, and the Academy's recent presidents assembled below are heirs to a venerable tradition.

It took a while for that tradition to take hold; Dr.

Warthen and Dr. Blanton agree that the early years of the infant Academy were wobbly. Interest waxed and waned. Meetings came and went. From 1826 to 1841 there were no meetings at all. Now and then those trying to get the group going changed its name, but even such a fancy title as the "Medico-Chirurgical Society of Richmond City" failed to set the organizational adrenalin flowing.

There were 44 members in 1853 but only 14 of them came to the annual meeting, records Dr. Blanton, commenting that the society "had been badly sustained by its members in every way, with some half dozen doctors keeping it in existence."[2]

Then, in 1877, an argument over the quality of the society's scientific programs split the members into two camps. This schism seems to have worked a certain catharsis, for when in 1890 the two factions shook hands and made up, the society entered upon slow but steady growth. By 1900 there were 100 members.[3] In 1910 women were admitted to membership.[2] The first female president, Dr. Carolyn M. McCue, was accorded the place of honor at center front in this group portrait.

Today the Richmond Academy of Medicine counts 1200 members. Meetings are held monthly, excepting the three months of summer. Dinner is served first, and then there is a program, which usually has a scientific topic but increasingly treats on political issues. The meetings alternate between a commercial setting and the Academy's home, a Georgian building that sits serenely amid the hectic traffic of the Medical College of Virginia in downtown Richmond.

Completed in 1932, this handsome brick building houses on the first floor the professional staff and two libraries, one the Academy library of books donated by members, the other the renowned collection of rare medical books given to the Academy in 1927 by Dr. Joseph L. Miller. Behind the past presidents in this picture gleam the mahogany bookcases of the Miller Library.

Up the broad staircase on the second floor is the auditorium, where programs are held, and down the staircase on the basement level is the big room where dinner is served. The occasion for this photograph was a "Past Presidents Night", and the honorees were en route from dinner to program. All of the living past presidents are pictured except one, Dr. William C. Gill, Jr., whose likeness is here inserted to complete this pictorial record of medical leadership.

Dr. Gill

—ANN GRAY


1. Warthen HJ: The Richmond Academy of Medicine, 1820-1900. Va Med Mon 89:559, 1962
2. Blanton WB: Medicine in Virginia in the 19th Century. Richmond, Garrett & Massie, 1933, pp 75, 91, 93
3. Williams C: The Richmond Academy of Medicine, 1900-1960. Va Med Mon 89:574, 1962


**Past presidents of the Richmond Academy of Medicine and the years in which they served: seated, from left, Dr. Leroy Smith, 1979; Dr. Thomas W. Murrell, Jr., 1959; Dr. Harry J. Warthen, Jr., 1949; Dr. Carolyn M. McCue, 1975; Dr. Richard A. Michaux, 1969; Dr. Kinloch Nelson, 1951; and Dr. R. Campbell Manson, 1963. Standing, from left, Dr. Custis L. Coleman, 1980; Dr. Emmett C. Mathews, 1973; Dr. W. T. Thompson, Jr., 1972; Dr. Elam C. Toone, Jr., 1957; Dr. Daniel D. Talley, III, 1964; Dr. Robert Irby, 1974; Dr. William R. Hill, 1965; Dr. Earnest B. Carpenter, 1968; Dr. John P. Lynch, 1962; Dr. Carrington Williams, Jr., 1971; Dr. William H. Higgins, Jr., 1967; Dr. Percy Wootton, 1976; Dr. William T. Tucker, 1970; Dr. E. L. Kendig, Jr., 1961; and Dr. Robert E. Mitchell, Jr., 1977. Dr. Murrell and Dr. Hill are also Past Presidents of The Medical Society of Virginia, and Dr. Wootton is current MSV President. Current president of the Richmond Academy is Dr. Charles M. Caravati, Jr.**

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# LETTERS TO THE EDITOR

## Enjoys "Familiar Faces" in Va Med's Pages

Just a line to say how much I enjoyed the 209 Virginia doctors in one picture in the December VIRGINIA MEDICAL.[1] To me it was most appreciated since I've been away from the Society now eight years, and it's nice to go through the journal each issue and see old familiar faces.

Keep up the good work.

**Baxter H. Byerly, MD**

1215 Lee Avenue
Tallahassee FL 32303

1. Portrait of the 1980 House of Delegates. Va Med 107:840-843, 1980

## Sides with New Eye Surgery

In his recent Letter to the Editor,[1] Dr. Henry S. Campell urges caution in acceptance of the surgical procedure, radial keratotomy, for the correction of myopia. Furthermore, Dr. Campell states that he advises against the operation when an inquiry is made by one of his patients, although, as stated, the procedure is "relatively simple" in the hands of the trained and qualified surgeon who adheres to standardized tables with predictable results.

Contrary to Dr. Campell's observation, radial keratotomy does serve to decrease astigmatism, and persistent fluctuating vision and nocturnal glare have not proven to be long-term effects.

In 1974, S.N. Fyodorov of Moscow and co-workers developed a technique of incising the outside surface of the cornea in such a way as to produce immediate flattening of the central cornea with subsequent reduction of the myopia to plano in certain cases. From 1974 to the present, 2500 human subjects have had this surgery performed in the Soviet Union. In these six years, less than 1% of the operated corneas have changed from the stabilized state postoperatively; 250 of the 2500 cases have been followed for that period of time. No serious complications have occurred in any eyes.

Ophthalmic surgeons in the United States have performed over 2000 such operations. The first paper in the American literature outlining and detailing the surgery, including animal work, appeared in the *Annals of Ophthalmology* in December 1979. Responsible investigators with appropriate informed consent are now participating in the careful scientific observation and long-term followup to which Dr. Campell alludes, as members of the National Radial Keratotomy Study Group and protocol. Information provided by adjunct investigators on greater than 1500 patients would in part negate the observation that the procedure is simple, unpredictable, and not effective with reference to astigmatism. Additionally, complications as mentioned, a part of any surgical procedure, have proven to be minimal. The Study Group protocol, that of the private sector, has been accepted in part by a separate, medical-center, government-granted investigation, to which Dr. Campell refers, under the direction of Dr. George Waring of Emory University in Atlanta, Georgia.

A larger question looms from the current radial keratotomy study with reference to investigational studies. Will the advancements in medicine be limited to, and the sole possession of, government-funded academic institutions at what may be an extravagant expense? Or should the private sector, under the guidance of careful and responsible investigators, be allowed, as well, to advance the science and art of medicine?

**Walter E. Bundy, III, MD**
**A. D. Sakowski, Jr., MD**

5855 Bremo Road
Richmond VA 23226

1. Campell HS: Caution flag out on surgery for myopia (letter). Va Med 107: 721, 1980

**Dr. Campell replies:** Dr Bundy, Dr. Sakowski and I agree that the surgical procedure of radial keratotomy for reducing myopia may have promise, but I think that a six-year followup of only 250 cases operated on in Russia is an inadequate long-term study. For me, any complication or permanent unpleasant side effect is difficult to accept when operating upon eyes which see 20/20 with glasses and/or contact

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**Annual Spring Meeting of the Mid-Eastern Chapter, Society of Nuclear Medicine,** at the Uniformed Services University of Health Sciences, *Bethesda, Maryland.* Cat. 1 credit. Charles D. Teates, MD, Box 486, University of Virginia Medical Center, Charlottesville VA 22908, (804) 924-5201

**April 15**
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**April 17-18**
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**Advanced Practicum in Ultrasound** (Johns Hopkins University), *Baltimore.* Cat. 1 credit. Fee: $400. Janet Hardy, Office of Continuing Education, 720 Rutland Ave., Baltimore MD 21205.

**April 21**
**11th Annual Charles W. Thomas Lecture on Rheumatology: Evolving Concepts of Systemic Lupus Erythematosus** (Medical College of Virginia), *Richmond.* Shaun Ruddy, MD, Box 263, MCV Station, Richmond VA 23298.

**April 21-24**
**Clinical Advances in Pulmonary Disease** (University of Pennsylvania), *Philadelphia.* Cat. 1 credit. Fee: variable, $170-$300. Alfred P. Fishman, MD, University of Pennsylvania.

**April 22**
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**April 22-24**
**9th Annual Georgetown Hand Symposium,** *Washington, DC.* Dr. Norman J. Cowen, 2430 Pennsylvania Ave., NW, Suite 105, Washington DC 20037, (202) 829-1000.

**April 23-25**
**American Cancer Society,** *Washington DC.* N.G. Bottiglieri, MD, 777 3rd Ave., New York NY 10017.

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**Annual Meeting of the Virginia Orthopaedic Society,** *Williamsburg.* Guest speaker: Sir John Charnley, of hip joint replacement fame. Joseph O. Romness, MD, 3801 N. Fairfax Dr., Arlington VA 22203, (703) 525-3524.

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**62nd Annual Meeting of the Virginia Society of Ophthalmology and Otolaryngology,** *Virginia Beach.* 10 Cat. 1 credits applied for. Donna Strawderman, 4205 Dover Rd., Richmond VA 23221, (804) 353-2721.

**May 8-9**
**Current Controversies and Techniques in Congenital Heart Disease** (University of Maryland), *Baltimore.* Betty B. Saar, University of Maryland School of Medicine, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

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**May 17-22**
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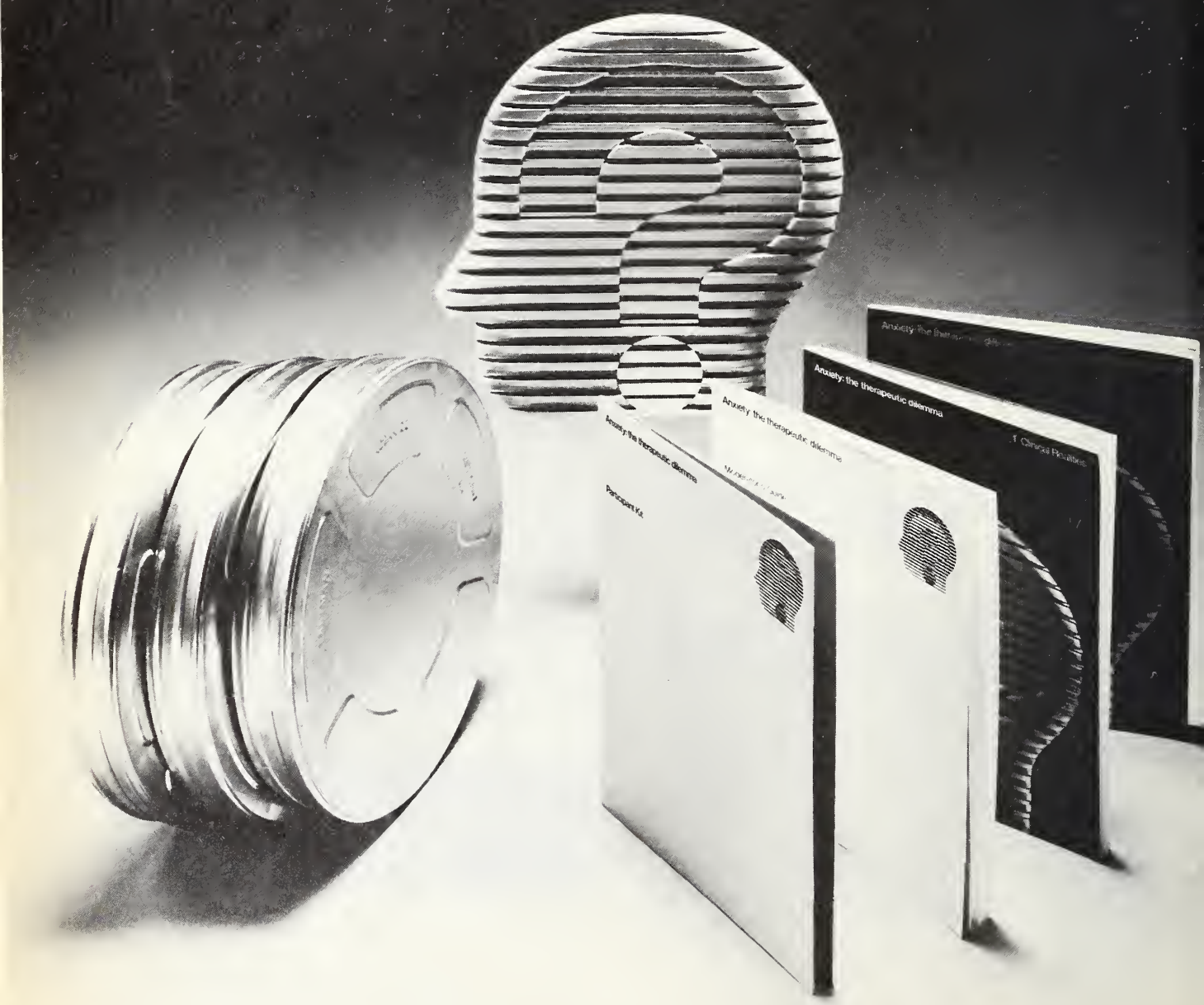

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**Sida Effacts:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported; should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
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VIRGINIA MEDICAL
MARCH 1981

# Ectopic Hormone Production: A Review

David F. Gardner, MD, *Richmond, Virginia*

Once considered a medical curiosity, ectopic hormone production is now known to have specific clinical relevance, and the general practitioner will profit from a basic knowledge of the phenomenon. Toward that goal, the author reviews the mechanisms and manifestations of ectopic hormone production as it is understood today.

During the past ten to 15 years, the general availability of sensitive and specific hormone radioimmunoassays has resulted in the discovery that virtually all peptide hormones may be produced ectopically. At first considered only a medical curiosity, it is now apparent that a basic understanding of ectopic hormone production is clinically important not only to the endocrinologist and oncologist but the primary care practitioner as well. This practical relevance has both positive and negative features: On the positive side, ectopic hormones may serve as early markers of otherwise unrecognized malignancies and may be useful parameters in monitoring the efficacy of tumor-specific therapy. On the negative side, ectopic hormones may result in paraneoplastic syndromes more disabling than the underlying neoplasm.

An ectopic hormone is one secreted by a tissue not normally engaged in the production of this hormone. In all cases the cells of origin have been malignant or potentially malignant. To date, all ectopic hormones have been polypeptides rather than steroids, catecholamines, or iodothyronines. This is not surprising, as these non-peptide hormones require multiple steps in their biosynthesis and would require the ectopic production of multiple biosynthetic enzymes.

It is important to distinguish ectopic hormone production from the production of a normal hormone by a normal tissue in an ectopic site. This situation would pertain to the production of adrenal corticosteroids by adrenal rest cells in the ovary or the testicle. Also, the definition assumes we know all the "normal" sites of hormone production. There are numerous recent examples—somatostatin, calcitonin, thyrotropin-releasing hormone, glucagon, etc.—which suggest that hormones may be produced by tissues quite different from those generally considered to be their "normal" sites of production.

## Diagnostic Criteria

The generally accepted criteria for documenting ectopic hormone production are summarized in

From the Department of Medicine, Medical College of Virginia/Virginia Commonwealth University. Address correspondence to the author at Box 102, MCV Station, Richmond VA 23298.

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Table 1. The first criterion, the association of an endocrine syndrome with a neoplasm, is probably the weakest form of evidence. It is not uncommon for such endocrine disorders as hypercalcemia or hyponatremia to occur simultaneously with malignant neoplasms, but such an occurrence does not necessarily imply a cause and effect relationship. There are, for example, several reports of patients with hypercalcemia and cancer in whom the hypercalcemia was corrected by removal of a benign parathyroid adenoma.

The demonstration of an arteriovenous gradient in hormone concentration across a tumor is strong evidence of ectopic hormone production. However, it is technically difficult to obtain blood samples from the tumor venous effluent even at the time of surgical exploration. In addition, episodic or low rates of hormone secretion might result in a false negative study. The production of a hormone by tumor cells in culture is likewise strong evidence for ectopic hormone production. This is usually documented by the incorporation of radioactively labeled amino acids into the hormone, or by the demonstration of increasing quantities of unlabeled hormone in the incubation medium. The disappearance of an endocrine syndrome following surgery, chemotherapy, or radiotherapy provides important indirect evidence that the tumor was producing a hormone ectopically.

Probably the most frequently cited criterion for ectopic hormone production is the demonstration of a hormone in tumor tissue in concentrations significantly greater than in adjacent normal tissue. Verification is usually achieved by radioimmunoassay of tissue extracts or by immunocytochemical techniques. False negative studies could theoretically result from rapid hormone turnover by tumor tissue and false positives from trapping of circulating hormones by neoplasms (the "sponge" theory, described below).

The demonstration in the serum of a hormone which is quantitatively or qualitatively different from normal may provide documentation of ectopic hormone production. To fulfill the quantitative criterion, the serum hormone concentration must exceed the highest concentration observed in any non-tumor situation. With regard to qualitative criteria, early studies, particularly those involving ectopic ACTH and PTH secretion, suggested that many tumors were making hormones qualitatively different from normally secreted peptide hormones. Subsequent studies, however, demonstrated that these differences are related to the secretion of a variety of biologically inert peptide hormone precursors, fragments, or one of the chains of the glycoprotein hormones. While these peptides produce no clinically recognizable endocrine syndromes, they have great potential clinical utility as specific tumor markers. It may well turn out that the elaboration of biologically active peptides occurs far less frequently than the elaboration of biologically inactive peptides. There is now considerable evidence supporting the hypothesis that the production of biologically active or inactive peptides is extremely common and may, in fact, be a universal property of neoplasms.

**Table 1. Diagnostic Criteria for Ectopic Hormone Production.**

1. Association of an endocrine syndrome with a neoplasm.
2. Arteriovenous gradient across the tumor bed.
3. Hormone production by tumor cells in culture.
4. Disappearance of an endocrine syndrome after tumor ablation.
5. Demonstration of hormone in tumor tissue in amounts greater than normal adjacent tissue.
6. Demonstration of hormone in serum quantitatively or qualitatively different from normal.

## Endocrine Syndromes

The association of Cushing's syndrome with oat cell carcinoma of the lung was first reported in 1928, and this tumor remains the one most frequently associated with ectopic ACTH production. Other neoplasms producing this syndrome include carcinoid tumors, thymomas, pancreatic islet cell tumors, medullary carcinomas of the thyroid and pheochromocytomas. Because of the rapidly progressive downhill course associated with many of these malignancies, the classic signs of Cushing's syndrome frequently are not apparent. Rather, the clinical presentation is marked by weight loss, muscle wasting, psychiatric manifestations, hyperpigmentation, hypertension and often a severe hypokalemic alkalosis. In patients with less aggressive tumors, such as bronchial carcinoids, the clinical presentation may be indistinguishable from that of Cushing's disease (pituitary-dependent adrenal hyperplasia).

A large group of patients harboring tumors *not* associated with any evidence of Cushing's syndrome produce a form of ACTH that reacts in the ACTH radioimmunoassay but possesses little if any bioactivity. This peptide has been called "big ACTH" and has a molecular weight of 20,000, as compared with 4,500 for bioactive ACTH. It appears to be a normal precursor, or pro-hormone, for ACTH, and has been found in a high percentage of patients with lung cancer, regardless of histologic type.

**Table 2. Mechanisms of Hypercalcemia in Malignancy.**

1. Parathyroid hormone (PTH).
2. PTH-like peptides.
3. Prostaglandins.
4. Osteoclast-activating factor.
5. Coincidental primary hyperparathyroidism.
6. Direct bony invasion by metastases.

A recent prospective study has investigated the potential clinical utility of plasma ACTH measurements in patients admitted for evaluation of an abnormal chest x-ray suggestive of malignancy. These data suggested that plasma pro-ACTH (big ACTH) levels were frequently elevated early in the course of lung cancer. However, the use of this measurement as a screening test in patients felt to be at high risk for lung malignancies must be considered premature until large groups of patients have been studied prospectively.

Probably the most common endocrine abnormality associated with malignancy is hypercalcemia. Until approximately 25 years ago it was assumed that hypercalcemia occurred only in patients with bony metastases. It is now clear, however, that patients with a variety of non-parathyroid neoplasms can elaborate humoral factors which elevate serum calcium concentrations in the absence of bone metastases. Table 2 summarizes possible mechanisms of hypercalcemia in the patient with an underlying malignancy.

The true incidence of ectopic parathyroid hormone production in the hypercalcemic patient with cancer remains controversial. One group has reported an incidence as high as 95% in 108 consecutive patients with cancer-associated hypercalcemia, while others report a much lower incidence. The reason for these discrepancies almost certainly lies in the different antisera used for the PTH radioimmunoassays at different centers. This fundamental problem remains unresolved, although it is clear that at least some cases are due to ectopic PTH production.

Prostaglandins (PG), particularly of the E series, have been shown to have potent bone resorption activity in vitro. Elevated urinary excretion of PG-E metabolites has been well documented in several patients with cancer-associated hypercalcemia. The administration of such prostaglandin synthetase inhibitors as indomethacin or aspirin has produced a simultaneous fall in the serum calcium concentration and urinary PG-E metabolite excretion in many of these patients. This evidence, while circumstantial, strongly suggests that prostaglandins are mediating accelerated bone resorption in some cancer patients. Osteoclast activating factor (OAF) is a peptide isolated from the supernatant of myeloma and lymphoma cell lines grown in culture; it has potent osteoclast-stimulating activity in vitro and is probably an important mediator of hypercalcemia in patients with hematological malignancies.

The ultimate importance of each of these humoral mediators remains to be defined, but they emphasize the fact that the hypercalcemia of the malignancy is a syndrome of diverse etiologies rather than a single clinical entity. It should be remembered that primary hyperparathyroidism is a common clinical disorder which may present coincidentally with an unrelated malignancy. This association is well documented in the medical literature.

Fasting or spontaneous hypoglycemia has been associated with a variety of non-islet cell tumors. The tumors most frequently implicated are large mesenchymal tumors (e.g., mesotheliomas, fibrosarcomas, etc.), which often attain large proportions by the time clinical symptoms are apparent.

Table 3 summarizes some of the mechanisms proposed to explain tumor hypoglycemia. Over-utilization of glucose by some of the large mesenchymal tumors has been suggested as a possible mechanism, and, in fact, some neoplasms do appear to have markedly accelerated rates of glycolysis. However, over-utilization of glucose by itself is unlikely to cause hypoglycemia because of the tremendous gluconeogenic capacity of the normal liver. The production of inhibitors of hepatic gluconeogenesis by tumors has been suggested, but there is little concrete evidence as yet to support this hypothesis. Ectopic production of insulin has been reported in a few cases, but it appears to be an extremely rare mediator of hypoglycemia in the cancer patient.

Recently, preliminary reports have suggested a role for the somatomedins in tumor hypoglycemia. These peptides, normally produced by the liver, have biological activity similar to insulin. One of the somatomedins, NSILA (non-suppressible insulin-like activity), was observed to be elevated by a radioreceptor assay in five of seven patients with non-islet cell tumors and fasting hypoglycemia. The true prevalence of this abnormality remains to be documented in larger groups of patients.

The syndrome of inappropriate ADH secretion

**Table 3. Mechanisms of Tumor Hypoglycemia.**

1. Over-utilization of glucose by tumor.
2. Tumor producing inhibitor of hepatic gluconeogenesis.
3. Ectopic insulin production.
4. Production of insulin-like activity.

(SIADH) in patients with ectopic ADH secretion is similar to that seen in patients with nonmalignant disease. It is characterized by hyponatremia, hypervolemia, inappropriately concentrated urine, and high urine sodium concentrations. The tumor most frequently implicated is small cell carcinoma of the lung. However, other lung neoplasms, including squamous cell and anaplastic cancers, prostatic cancer, adrenocortical carcinoma, and Hodgkin's disease, have all been associated with the syndrome. The hormone produced by these neoplasms appears identical or very similar to normally circulating ADH on the basis of bioassay, immunoassay and gel chromatography studies.

Because of the potential quantitative problems associated with the measurement of normally circulating peptide hormones, these peptides have not been used successfully as tumor markers. The ideal tumor marker would be a polypeptide secreted into the circulation by a neoplasm but not detected by highly sensitive methods in the serum of normal subjects. The placental proteins—human chorionic gonadotropin (HCG) and human placental lactogen (HPL)—appear to meet these requirements, at least partially. The hormone studied in most detail has been HCG. It was initially believed that only tumors of germ cell origin—choriocarcinomas, trophoblastic tumors, etc.—were capable of elaborating this hormone, but in a large retrospective series of over 1,000 patients with non-testicular neoplasms, HCG was detectable in the serum of 11% of patients. With the availability of specific assays for the alpha and beta chains of HCG, it is now clear that some tumors make only the alpha *or* the beta chain rather than the intact HCG molecule.

Scattered case reports have been published describing the ectopic production of many other normally circulating hormones. These have included growth hormone, prolactin, calcitonin, erythropoietin and even some of the hypothalamic releasing hormones, corticotropin releasing factor and growth hormone releasing factor. In addition, several case reports have documented the simultaneous production of two ectopic hormones by a single neoplasm.

**Mechanisms of Ectopic Hormone Production**

A variety of hypotheses have been advanced to explain the phenomenon of ectopic hormone production. The "sponge" hypothesis suggests that neoplastic tissues somehow selectively adsorb circulating hormones, and that increased plasma levels of a hormone may result from the release of these hormones when tumor cells undergo necrosis. There is little current evidence to support this interesting speculation. The "abnormal genome" hypothesis suggests that at some point during or after neoplastic transformation abnormal new genes appear, coded for ectopic peptides. There is currently little evidence to support this theory, and strong evidence against it is the observation that the peptide products of tumor tissues appear to have the identical amino acids sequences of normally circulating peptide hormones. This situation would not be predicted by the abnormal genome hypothesis.

The two most popular theories at this time are random derepression and the "endocrine cell" theory. The random derepression hypothesis is based on the proposition that malignant cells, which possess the identical genetic material as normal cells, are somehow "derepressed" during their neoplastic transformation. This results in the transcription and translation of ectopic hormones. This mechanism would predict that the amino acid sequence of the peptide synthesized ectopically would be identical to the normally synthesized hormone, and this does appear to be the case. However, the observed association between certain ectopic hormone syndromes and specific tumor types, and the observation that certain tumors are rarely associated with ectopic hormone production suggests that derepression is not truly a random process.

The "endocrine cell" theory proposes that ectopic hormones are produced by neoplastic cells embryologically related to the precursor cells of normal endocrine tissues. Thus, in a sense the neoplastic cells are anatomically, not functionally, ectopic. On the basis of detailed histochemical and ultrastructural studies, Pearse has postulated the existence of one such cell—the APUD (amine precursor uptake and decarboxylation) cell. The eponym relates to the ability of these cells, derived from the neuroectoderm, to take up amine precursors (e.g., DOPA, 5-hydroxytryptophan, etc.) and by decarboxylation convert them to biogenic amines. A major difficulty with this theory is the recent observation that the possession of APUD characteristics does not necessarily imply origin from the neural crest as originally proposed. In addition, many neoplasms associated with ectopic hormone production simply do not possess the ultrastructural and histochemical features of APUD cells.

It is apparent that none of the currently available theories adequately explain ectopic hormone production in its entirety. It may well be that several different mechanisms will ultimately be demonstrated responsible for the diverse clinical manifestations of ectopic hormone production.

*Bibliography on request.*

# Morbidity and Mortality Conference: Acute Pulmonary Blastomycosis

From the Medical College of Virginia/Virginia Commonwealth University.
Case Presentation by Harrison W. Farber, MD.
Clinical Discussion by Thomas M. Kerkering, MD.
Pathology Discussion by Katherine M. Jasnosz, MD.

## Presentation of Case

Dr. Harrison W. Farber: A 52-year-old black woman was referred to the Medical College of Virginia for evaluation and treatment of pneumonia. She was in good health until one week prior to admission when she developed malaise and progressively severe, diffuse myalgias and headache. Four days prior to admission, she complained of right pleuritic chest pain; a dry, hacking, non-productive cough; fever, chills and night sweats. She presented to a local physician with fever of 102°F and was given 1.2 million units of penicillin G intramuscularly and 500 mg of ampicillin by mouth qid.

Two days prior to admission she developed nausea and vomiting. Her physician advised hospitalization.

Past medical and family histories revealed no significant illnesses, notably no diabetes, hypertension or tuberculosis. She did not use tobacco or alcohol. No family members or neighbors were ill.

She lived in a rural area where conditions were extremely dry and dusty. She used well water but raised no livestock or pets, although neighbors in the area raised hogs and poultry. There was no history of insect bites.

Her vital signs on admission were: temperature 102°F orally, blood pressure 140/80 mm Hg, pulse 98 and respirations 28 per minute. She was a well-nourished, well developed woman in mild respiratory distress. Her eye, ear, nose and throat exam revealed only pharyngeal erythema. Her neck was supple. Pulmonary exam revealed mid to late inspiratory rales at the right base without egophony, fremitus or dullness. The diaphragms moved well. The cardiac exam was significant for a 2/6 systolic ejection mur-

From the Departments of Medicine and Pathology, Medical College of Virginia.

The Morbidity and Mortality Conference series is prepared under the direction of Richard J. Duma, MD, chairman, Division of Infectious Diseases at the Medical College of Virginia. Correspondence should be addressed to him at Box 49, MCV Station, Richmond VA 23298.

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mur best heard at the left sternal border and apex. Examination of the abdomen, extremities and neurologic system were unremarkable. No lymphadenopathy or cutaneous lesions were noted.

Laboratory values on admission were: hemoglobin 10.2 gms/dl, WBC 13,700/cumm with a differential of 79% neutrophils, 15% bands, 2% eosinophils and 4% monocytes. Serum electrolytes were normal except for $K^+$ of 3.0 mEq/dl. Serum creatinine was 0.6 mg/dl, and there were mild elevations of the SGOT (68 units/dl) and SGPT (50 units/dl). The electrocardiogram showed normal sinus rhythm with left ventricular hypertrophy by voltage criteria only. Chest x-ray showed a patchy alveolar process involving the right middle and lower lobes. Arterial blood gas obtained while the patient breathed room air revealed $P_AO_2$ 74 mm Hg, $P_ACO_2$ 37 mm Hg, pH 7.49, $HCO_3$ 27.5 mEq/L. Expectorated sputa were unobtainable despite vigorous coughing. Paired blood and urine cultures were obtained and grew no organisms. The spinal fluid was unremarkable and was sterile for bacteria.

Tetracycline 500 mgm by mouth q6hrs was begun.

On the 2nd hospital day a transtracheal aspiration was performed, revealing many neutrophils, few lymphocytes and no organisms on Gram stain or wet preparation. The volume of fluid obtained was insufficient for culture. Erythromycin 1 gm IV q6hrs was substituted for tetracycline because of the possibility of Legionnaire's disease.

By the 5th hospital day symptoms persisted, with daily fevers up to 103°F. Egophony developed in the right base, and the WBC rose to 19,000 per cumm with a differential of 66% polys and 24% bands. A 5-TU PPD and Candida skin tests were negative. Acute and convalescent titers for *Legionella pneumophila, Mycoplasma pneumoniae,* and the psittacosis group were <1:8. Cold agglutinins, HBsAg and VDRL were negative. Serum iron was 22 μg/dl with a total iron binding capacity of 195 μg/dl. Folate and $B_{12}$ levels were normal. There was no evidence of hemolysis. A bone marrow aspiration revealed 2/4 + iron stores, no malignant cells and normal maturation of all elements.

By the 10th hospital day, consolidation of the right lower lobe with rales in the left base developed. The WBC rose to 28,900, and a chest x-ray revealed involvement of the right middle, lower and left lower lobes. No effusion was present. A transthoracic aspiration revealed fluid which contained neutrophils, lymphocytes and alveolar cells but no bacterial or fungal forms.

The patient's respirations remained elevated up to 38 per minute with deterioration of blood gases to $P_AO_2$ 55, $P_ACO_2$ 31, and pH 7.53 with $HCO_3$ 25 while breathing 3L/min $O_2$ by nasal prongs.

On the evening of the 10th hospital day she was transferred to the general medical intensive care unit for elective Swan-Ganz catheterization to rule out congestive heart failure. Right atrial pressure was 8 mm Hg, right venticular pressure 37/7 mm Hg, pulmonary artery pressure 35/18 mm Hg, and pulmonary capillary wedge pressure 14 mm Hg. The oxygen content of the mixed venous blood was 31 vol% with serum hemoglobin of 10.0 gm/dl. These values were interpreted as inconsistent with cardiogenic pulmonary edema and myocardial depression.

On the 11th hospital day the patient was returned to the general medical floor. Late that evening she developed worsening respiratory distress with deteriorating blood gas studies. On 10 L/min $O_2$ by nasal prongs her $P_AO_2$ was 62, $P_ACO_2$ was 32, and pH 7.46.

On the morning of the 12th hospital day she was returned to the intensive care unit for closer observation. Fever and pleurisy were still present, and a chest x-ray showed involvement of right upper, middle and lower lobes. The WBC was now 33,500 per cumm. She also developed hyponatremia consistent with inappropriate antidiuretic hormone secretion (SIADH).

By the 13th hospital day she was becoming progressively dyspneic with respiratory acidosis. She was electively intubated. Chest x-ray revealed involvement of all lung fields. Repeated sputum examinations were negative; however, a culture from the transthoracic aspiration was reported to be growing an unknown organism. Respiratory support included 50% $FIO_2$ via endotracheal tube with a positive end-expiratory pressure (PEEP) of 5 cm of water. An arterial blood gas sample obtained on the above setting showed $P_AO_2$ 67, $P_ACO_2$ 37 and pH 7.27. That day, the patient suddenly developed bradycardia, hypotension and coma. She was resuscitated but without return of mental status. Studies from a Swan-Ganz catheterization again ruled out cardiogenic pulmonary edema. Later on the same day, she underwent open lung biopsy, the frozen sections of which revealed a questionable viral process. Lumbar puncture was unremarkable.

On the 14th hospital day, the permanent sections of the lung biopsy were reported to contain *Blastomyces dermatitidis.* Erythromycin was stopped and amphotericin B begun. At this time, all CSF, blood and tissue cultures revealed no pathogens. Sputum wet prep now revealed multiple, large, broad-based, budding, circular yeast forms consistent with *B dermatitidis.*

On the 15th hospital day an electroencephalogram

was consistent with anoxic or metabolic encephalopathy. Repeated LP was again unremarkable. A total of 40 mgm of amphotericin B was administered, but the patient continued to deteriorate. She became severely hypoxic and acidotic in spite of maximal respiratory support and died on the evening of the 18th hospital day. An autopsy was performed.

**Radiography**

DR. KARSTEN F. KONERDING: The admission chest radiograph (Fig. 1) revealed an alveolar process in the right lower lobe. The left lung was normal. A small right pleural effusion might be present, but no chest wall abnormalities were recognizable.

On the patient's 3rd hospital day, some increased density in the left lower lobe was detected. Radiographs on subsequent days showed progression of this left lower lobe consolidation. The final radiograph (Fig. 2), just before death, showed extensive bilateral lower lobe and left upper lobe consolidations.

In summary, the series of films demonstrated a right lower lobe alveolar process which went on to involve the left lower and upper lobes, representing a pneumonia with transbronchial spread. No etiology could be deduced from these radiographic findings.

**Respiratory Studies**

DR. KEVIN R. COOPER: On admission, arterial blood gases with the patient breathing room air showed a very mild respiratory alkalosis with a mild increase in the alveolar arterial (A-a) oxygen difference (Table 1). These were nonspecific but typical of acute pneumonia. By day 10, the respiratory alkalosis was more marked and the A-a difference greatly increased. On day 11, the respiratory alkalosis was maintained, but some renal compensation had taken place. The A-a difference was impossible to determine precisely since the exact $FIO_2$ was unknown, but oxygenation appeared worse than on day 10. On day 18, the day of death, the degree of impairment of oxygenation was comparable to that on day 11. However, the bicarbonate had fallen and the $PCO_2$ had risen, resulting in a new metabolic acidosis. Numerous causes of metabolic acidosis could have been re-

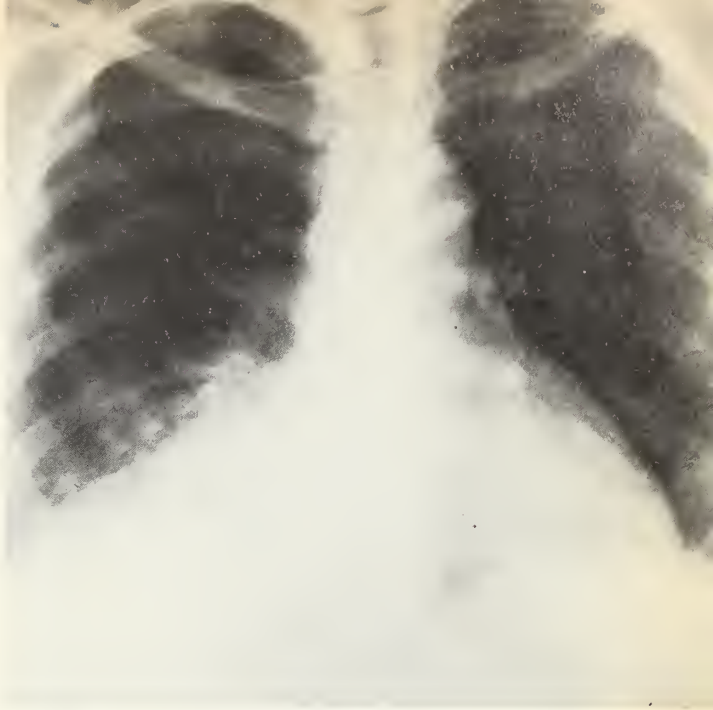

**Fig. 1. Chest x-ray on day of admission. Alveolar process in right lower lobe.**

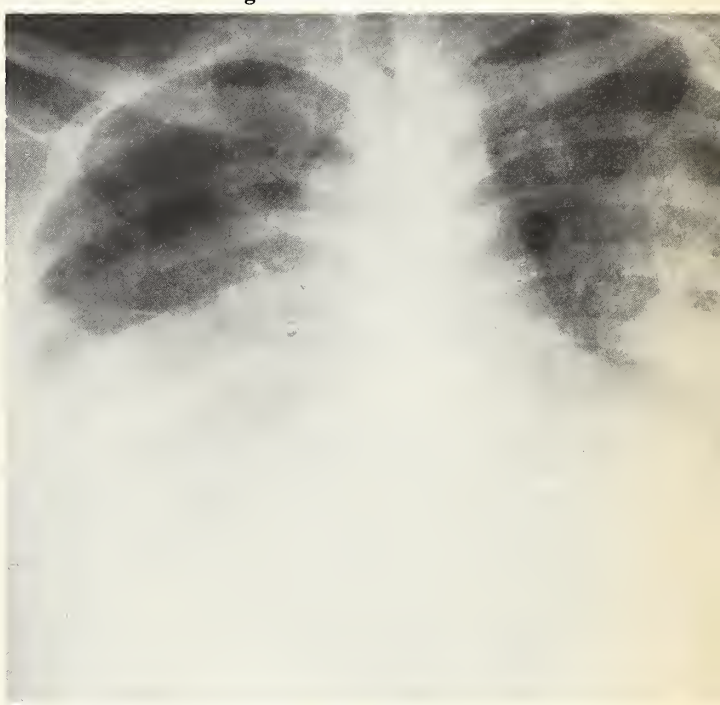

**Fig. 2. Chest x-ray 10 days after admission. Extensive bilateral involvement.**

**Table 1. Summary of Blood Gases During Hospitalization.**

| | Admission (on room air) | Day 10 3L $O_2$/min | Day 11 10L $O_2$/min | Day 13 50% FI $O_2$ (PEEP) 5 cm $H_2O$ |
|---|---|---|---|---|
| $P_AO_2$ mm Hg | 74 | 55 | 62 | 67 |
| $P_ACO_2$ mmHg | 37 | 31 | 32 | 37 |
| pH | 7.49 | 7.53 | 7.46 | 7.27 |
| $HCO_3$ | 27.5 | 25 | 23 | 20 |
| Respiratory rate (per minute) | 28 | 38 | — | 48 |

sponsible, but the most common in this clinical setting is lactic acidosis secondary to inadequate tissue perfusion.

## Clinical Discussion

Dr. Thomas M. Kerkering: It's not often one can look at a patient and say this is an obvious case of so-and-so. One usually has to consider a variety of diagnoses based on information at hand, then gather more data to rule diseases in or out.

Beginning with this patient's admission history, let us examine the possible etiologies. One week prior to admission she developed malaise, severe myalgias and headache. Such constitutional symptoms are vague and a litany of diseases present in this manner. In Virginia, one disease that must be considered because of its seriousness is Rocky Mountain spotted fever (RMSF). However, three days later she developed right pleuritic chest pain, a nonproductive cough, fever, chills and night sweats, an unusual constellation of complaints for RMSF. Besides, no rash appeared.

Acute bacterial pneumonias (ABP) acquired in the community present with rigors, fever and, in 80% of the cases, a productive cough, all within a few hours. A prompt response to antibiotics is expected. Since the most common organism producing ABP is the pneumococcus and since she received a penicillin without response, it is unlikely that this was the cause of her illness. Klebsiella and staphylococci are also causes of ABP, but they generally occur in debilitated hosts and almost always present with sputum production.

An acute viral pneumonia is unlikely because of the time of the year and absence of an epidemic. During the winter, primary influenza pneumonia would be a consideration; however, patients with this disease are desperately ill with hemoptysis and cyanosis, and often are pregnant or have mitral valve problems.

So what presents subacutely with fever, chills, night sweats nonproductive cough and pleurisy?

Anerobic bacterial pneumonia presents in this manner; but no history of underlying conditions to suggest aspiration was present. Anerobic empyemas or anerobic septic emboli from the pelvic region may present this way, but the chest x-ray rules out empyema, and inflammation of the pelvic area was not present.

Legionnaire's disease is a definite consideration. In sporadic cases, however, it usually occurs in immunosuppressed patients or in heavy cigarette smokers, neither of which this patient was. Pneumonia due to *Mycoplasma pneumoniae* is rare after age 50, exposure to young children is generally found and progression to frank consolidation is uncommon. Psittacosis is acquired from exposure to infected birds. She was exposed to poultry, but this disease is almost nonexistent in domestic flocks; in addition, pleurisy is extremely rare in psittacosis. The lungs can be involved in tularemia, but in most cases this is secondary to hematogenous spread from an infected lymph node. Primary tularemic pneumonia occurs as a result of inhalation of aerosols and is almost exclusively seen as a result of laboratory accidents.

Primary tuberculosis deserves mention, because, as the number of persons becoming infected in early life lessens with improved control of this disease, tuberculous pneumonia may increase in frequency in older individuals.

This brings us to the fungal diseases. Both histoplasmosis and blastomycosis occur in Virginia. Cryptococcosis also occurs but is probably not a consideration because of the severity of her disease. Histoplasmosis is acquired by exposure to areas heavily contaminated with bird droppings, such as chicken coops or starling roosts. Although the disease is usually asymptomatic to mild, severe pulmonary disease may occur, usually in children or young adults not previously exposed, and the chest x-ray usually shows multiple infiltrates. Even though this patient's symptoms were nonspecific, presentation after a week of illness with fever, cough, pleuritic pain and a nonresolving pneumonia is classic for acute blastomycosis, in which pleuritic pain without evidence of effusion is common. It is usually seen in patients with outdoor occupations or hobbies or who live in rural areas. Thus, one of the diagnoses that should have been considered likely early in her hospital admission is pulmonary blastomycosis.

So, after the above differential, two outstanding possibilities existed: Legionnaire's disease and an acute fungal pneumonia. No sputa could be obtained and after cultures of blood and urine, she was started on tetracycline. (Incidentally, tetracycline is an inappropriate first-choice drug for any undiagnosed pneumonia, since about 25% of all pneumococci are resistant to it.)

Appropriately, transtracheal aspiration was performed. Many polys, a few lymphs and no organisms were seen. This was further evidence for Legionnaire's disease, as the organisms are not seen on Gram stain. Immunofluorescence may at times be helpful, but this was not available. The appropriate drug, erythromycin, was then begun.

About the 5th hospital day things began to deteriorate rapidly. At this time more definitive diagnostic

procedures should have been undertaken. Bronchoscopy, transthoracic needle aspiration or open lung biopsy would have been appropriate. Attempts at definitive diagnosis should have been more vigorous because she was not responding to appropriate therapy for the assumed diagnosis, i.e., Legionnaire's disease.

By the 10th hospital day her condition worsened with left side lung involvement. Appropriately, a transthoracic needle aspiration was done which revealed inflammatory cells but no organisms, and again, direct immunofluorescence of this material might have been helpful. Palmer et al have discussed the efficacy of thoracic needle aspiration.[1] In short, results were excellent when the pulmonary disease was due to a bacterial etiology, but infections due to mycobacteria and fungi were still difficult to diagnose. These authors went on to state that if no diagnosis could be made by this method, the patient should receive an open lung biopsy.

Proper handling of lung biopsy tissue is important. An etiologic diagnosis often can be made immediately by simply doing touch preps and staining with Wright's or Geimsa stain, or, even easier, by mincing a small piece of lung on a slide and observing characteristic yeasts directly under the microscope. *Blastomyces dermatitidis* is readily visible even under low power (Fig. 3).

In the United States, blastomycosis occurs along the entire Mississippi River valley and in the Southeast. It has been recovered from nature only twice, from soil in Georgia and pigeon excreta in a greenhouse in Minnesota. Its natural habitat is unknown.

In its natural state and at room temperature, *B dermatitidis* exists in the mycelial or hyphal form. Spores generated from hyphae are small enough to be inhaled into the lung, where the initial nidus of infection occurs. At this point, depending on the inoculum size and host response, differing clinical pictures occur (Table 2).[2] Initially, there may be symptoms of acute pneumonia with fever, a cough that eventually becomes productive of purulent sputum, myalgias and arthralgias. Then any of three courses may develop: 1) The patient may recover and remain well. 2) There may be progressive pulmonary involvement with or without extrapulmonary involvement. 3) There may be initial recovery followed by endogenous reactivation of either pulmonary or extrapulmonary lesisons. In some instances there may be no symptoms at the time of the initial infection. Then one of two things may happen: No further disease may develop, or a slow onset of chronic and/or extrapulmonic infection may occur. The asymptomatic infection and the acute pneumonia that spontaneously resolve have only recently been recognized, and controversy exists as to whether or not they need antifungal therapy. If the fungus disseminates, it travels to the skin, bone and GU tract in that order of frequency. Dissemination obviously requires treatment. Amphotericin B is the drug of choice. It should be pointed out that no widely available skin test or serological procedure for diagnosing blastomycosis is available.

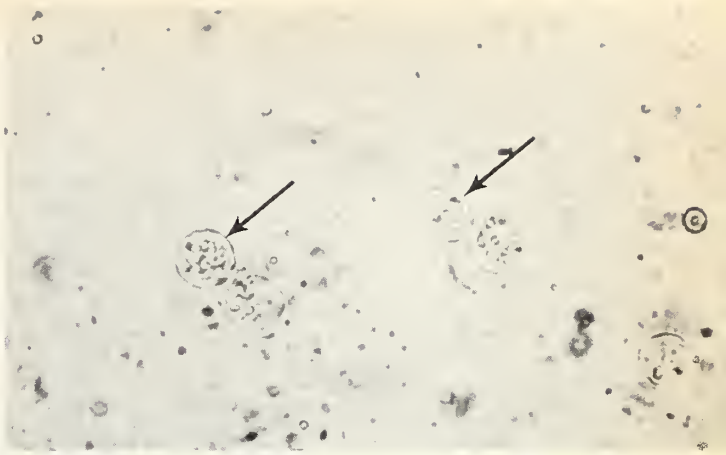

**Fig. 3. *B dermatitidis*. Two typical, broad-based, budding yeasts (arrows) in wet preparation of sputum under ordinary light microscopy (×600).**

## Pathology Discussion

DR. KATHERINE M. JASNOSZ: The autopsy was performed 15 hours after death. External examination of the body was remarkable for the absence of cutaneous lesions. Upon opening the chest cavity, there was no evidence of pleural effusions or adhesions. However, the pericardial sac contained approximately 75 cc of straw-colored serous effusion.

The major pathologic process was demonstrated in the lungs. They were intensely hyperemic, congested and edematous (weight 2760 grams; normal, 700-1000 grams). The upper air passages showed acute

**Table 2** (adapted from Sarosi and Davies[2]).

| Acute pneumonia | | | Asymptomatic | |
|---|---|---|---|---|
| Recovers no reactivation | Progressive pneumonia with or without dissemination | Recovery, then reactivation either pulmonary or extrapulmonary | Remains asymptomatic | Slow onset with either pulmonary or extrapulmonary disease |

tracheobronchitis. Cut sections (Fig. 4) revealed confluent necrotizing bronchopneumonia massively involving the basal lobes with substantial extension into lower segments of the upper lobes.

Representative histologic sections of the lung revealed focal necrotizing bronchopneumonia with an acute inflammatory reaction consisting primarily of neutrophils, fibrin, alveolar macrophages and occasional plasma cells (Fig. 5). Collections of round, yeast-like organisms measuring 5-15 microns in diameter with thick, double-contoured cell walls were present in areas involved in the pneumonic process. Special stains, PAS and Gomori methenamine silver (GMS), confirmed the presence of broad-based, budding, yeast-like organisms and aided in their specific identification as *B dermatitidis* (Fig. 6). Occasional granulomata, including giant cells with phagocytozed Blastomyces, were also seen. Other areas of the lung showed organizing pneumonia and fibroblastic proliferation. Some terminal airways were lined with hyaline membrane, consistent with acute respiratory distress syndrome. No organs, other than the lung, revealed the presence of fungi, and dissemination was not evident.

As seen in this patient's illness, North American blastomycosis is primarily a pulmonary infection in over 95 % of cases, although hematogenous spread to other organs (predominantly skin, bone, genitourinary tract and central nervous system) may occur. When inhaled, fungi lodge either in alveoli or pass into the interstitial tissues, initiating a polymorphonuclear leukocyte response. The histologic picture of active disease begins with suppurative changes, followed by the appearance of eosinophils, giant cells, lymphocytes and fibroblasts. The fungus is found in clumps or located within giant cells. Pulmonary lesions may be circumscribed or diffuse as in this case and may vary in extent from small granulomatous nodules to extensive necrotic areas containing multiple abscesses and involving most of the lung. Bronchial infection is common, with destruction of the mucosa and spread into the subjacent lung.

If untreated, acute pulmonary blastomycosis typically may be fatal within two to three weeks after onset of clinical symptoms, and, as in this case, the lungs show massively consolidated areas, often involving whole lobes without evidence of extrapulmonary lesions. Isolated cavity formation is usually seen only in the chronic form.

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2. Sarosi GA, Davies SF: Blastomycosis. Am Rev Resp Dis 120:911–938, 1979

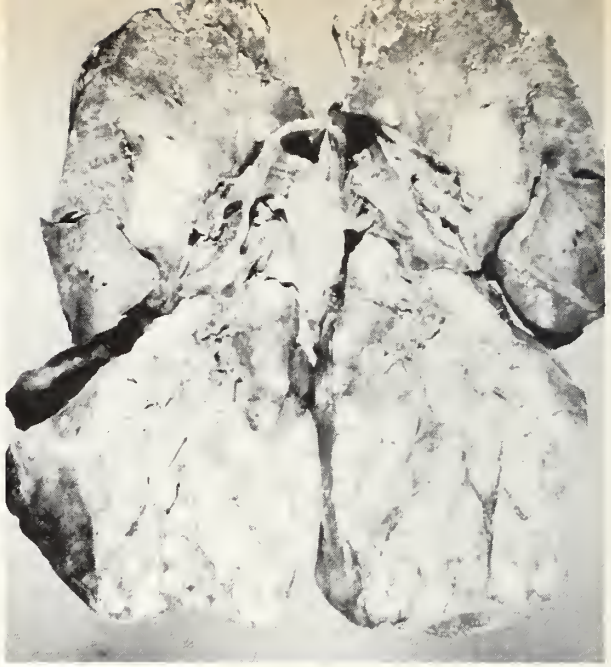


**Fig. 4. Formalin-fixed section of whole lung showing distribution of confluent necrotizing bronchopneumonia predominant in lower lobes and extending into upper lobes.**

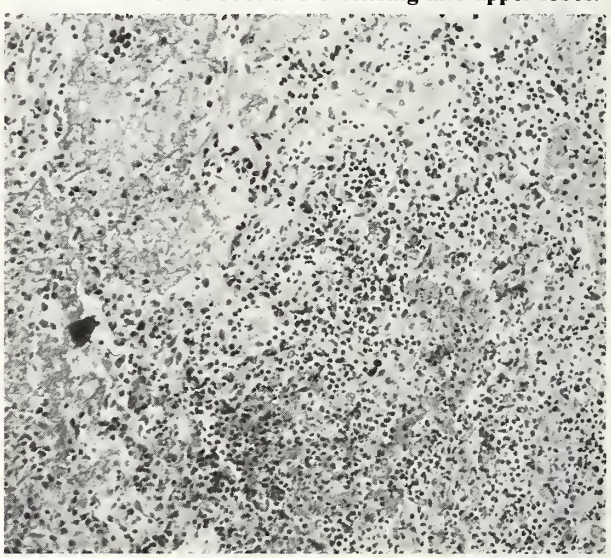
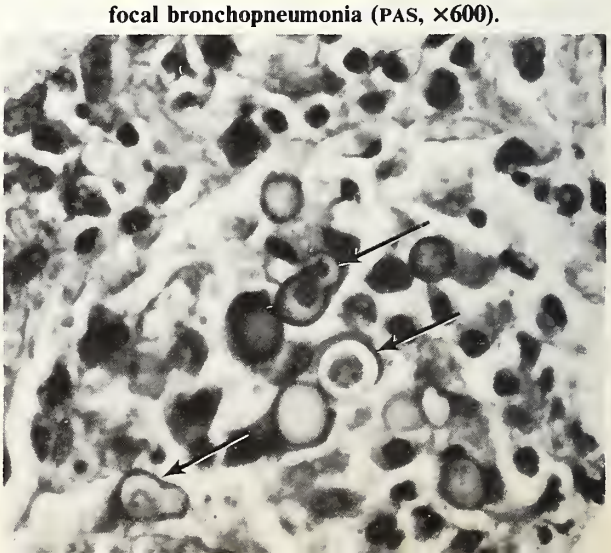


**Fig. 5. Focal necrotizing bronchopneumonia with acute inflammatory response consisting primarily of neutrophils (H&E, ×110).**

**Fig. 6. Round, yeast-like organisms (arrows) with thick, double-contoured walls *(B dermatitidis)* found in areas of focal bronchopneumonia (PAS, ×600).**



# Pain Response Compared: After Back Surgery, Cholecystectomy

Thomas N. Wise, MD, Otto Wong, ScD, and Walter A. Hall, *Falls Church, Virginia*

BEHAVIOR following a painful stimulus is the final common pathway of multiple variables including the noxious stimulus itself, personality traits, emotional status, environmental reinforcements, and cultural factors.[1] A previous study suggested that the acute pain tolerance of an individual following gallbladder surgery depended upon the interaction of personality style and affective status.[2] This report attempts to generalize this finding to another surgical population, a group of individuals undergoing back surgery.

## Materials and Methods

Thirty-three patients consecutively scheduled for elective cholecystectomy were compared with 33 patients scheduled for back surgery, either a cervical fusion, lumbar laminectomy or laminectomy and fusion. On the day prior to surgery each patient was interviewed to ascertain the presence of a psychiatric illness. To assess each patient's internal-external orientation[3,4], a symptom checklist 90 (SCL 90), which is a multi-dimensional psychometric instrument, and a 23-item Rotter locus of control inventory was administered.

On the five successive days following surgery the patients assessed their perception of pain, utilizing the 100-millimeter visual analog scale.[5] The total amount of pain medication taken in equivalent units of 75 mg of meperidine hydrochloride was determined throughout the five postoperative days.

From the Department of Psychiatry, the Fairfax Hospital, 3300 Gallows Road, Falls Church VA 22046. Address correspondence to Dr. Wise.

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## Results

The thirty-three individuals of each group were compared for demographic variables. The gallbladder patients consisted of 11 men and 22 females, whereas the back surgery group had 19 men and 14 females ($X^2 = 2.9944$, P is non-significant). The mean age of patients in the gallbladder series was 44.9 years with, a range of 27 to 75. The mean age of the patients scheduled for back surgery was 47.15, with a range of 22 to 68 ($t = 0.7906$, P is non-significant). The marital status of the groups revealed that, of the gallbladder patients, 27 were married and six were single, widowed or divorced, whereas 30 of the back surgery patients were married and three were single, widowed or divorced ($X^2 = 0.516$, P is non-significant). The previous surgical experience of both groups was similar. In the gallbladder series, 25 of the patients had experienced general surgery with anesthesia, whereas in the back surgery group, 29 had experienced past surgical procedures ($X^2 = 1.62$, P is nonsignificant).

The mean value for the locus of control as measured by Rotter's 23-item questionnaire was not significantly different for either the back pain patients or the gallbladder series (Table 1).

The back pain patients voiced significantly more complaints in the somatization dimension than their gallbladder counterparts. The back pain patients were also significantly more depressed than the other group, and their overall level of symptom distress

was also significantly greater than the post-cholecystectomy subjects. The level of anxiety experienced by both groups preoperatively was not significantly different.

The cholecystectomy and back pain groups showed no significant difference in their estimation of pain as measured by visual analog scales. The back pain patients, however, used significantly more medication than their post-cholecystectomy counterparts.

**Discussion**

Previous studies have reported the relationship between preoperative emotional status, personality style, and pain estimation and response,[6] in both experimental and actual pain situations. (The methodologic difficulties of the experimental situation have been outlined by Graffenreid et al.[7]) The surgical experience with postoperative pain provides a naturalistic setting for the study of pain response; the stress of surgery, however, must be considered as an important variable in any investigation. Davidson and Neufield have demonstrated that pain response can be partitioned from the stress of surgery.[8] This provides a sturdier connection between the independent variables of personality style and psychological status and the dependent factors of pain estimation and narcotic utilization. Prior studies have utilized heterogeneous surgical populations, but this creates methodologic problems because of differences between surgical procedures. This report demonstrates the differences in preoperative status and pain estimation and tolerance in two groups undergoing different surgical procedures. Each of these procedures, cholecystectomy and back surgery either cervical or lumbosacral, is generally done for relative indications.[9,10] Thus psychological factors may play a part in the reporting of symptoms leading to surgical treatment.

The groups showed no significant difference in mean locus of control. The relationship of pain tolerance to this dimension has produced contradictory findings.[11] This personality variable is developed from social learning theory whereby specific expectancies and reinforcement are considered to determine behavior.[12] Externally located individuals have a sense of fatalism, believing nothing they can do will affect their future; internally locused subjects have a sense of inner confidence of their ability to affect their fate. Auerbach et al found that an individual's specific expectations determined his adaptation to pain, not the specific locus of control.[13] It was found that the specific preparation of an individual depended upon his internal-external style and determined his ability to tolerate noxious stimuli. Externally located individuals needed more general information, whereas internals require specific data to allay anxiety. Thus environmental preparation must be congruent with the individual's general coping ability. With no difference in locus of control, the two group's disparity in emotional status and use of pain medicine reflects other factors.

The preoperative affective status of both groups differed significantly. The back surgery group reported far more somatic complaints on the SCL-90. This dimension includes questions about both musculo-skeletal and abdominal pain and is not weighted towards one illness. This difference is consistent with Pilowsky's observation. He noted that a group of patients attending a pain clinic for primarily musculoskeletal complaints had significantly greater somatic preoccupation than a control group attending a family medical clinic. An alternative possibility is that this difference reflects the inherent dissimilarity between visceral and peripheral discomfort.[14] Most of the literature on chronic pain refers to musculo-skeletal pain syndromes. This data is more applicable to

**Table 1. Pre- and Post-Operation Variables.**
**MEAN**

| Variable | Back Pain Patients | Gallbladder Patients | Statistic |
|---|---|---|---|
| Somatization | 1.065 | 0.646 | 3.4765 significant at 0.001 level |
| Obsessive-compulsive | 0.758 | 0.527 | 1.7910 nonsignificant |
| Interpersonal sensitivity | 0.420 | 0.349 | 0.5400 nonsignificant |
| Depression | 0.832 | 0.546 | 2.0476 significant at 0.05 level |
| Anxiety | 0.694 | 0.518 | 1.4047 nonsignificant |
| Hostility | 0.359 | 0.319 | 0.3628 nonsignificant |
| Phobic anxiety | 0.138 | 0.138 | 0 nonsignificant |
| Paranoid ideation | 0.262 | 0.263 | 0 nonsignificant |
| Psychoticism | 0.306 | 0.242 | 0.7812 nonsignificant |
| Global severity index | 0.549 | 0.393 | 1.8678 nonsignificant |
| Positive symptom distress index | 1.593 | 1.332 | 2.4564 significant at 0.05 level |
| Locus of control[4] | 8.606 | 6.939 | 1.3737 nonsignificant |
| Pain medication | 34.303 | 21.909 | 2.4504 significant at 0.05 level |
| Pain analogues | 36.848 | 27.970 | 1.8043 nonsignificant |

the back pain patients than the visceral nausea and discomfort caused by gallbladder disease.

The significantly elevated levels of depression in the back pain group support previous observations that individuals with pain complaints from an organic basis have pronounced signs of depression.[15] This dysphoria may be a reaction to chronic pain but also may reflect the generally guarded outlook of back surgery, as discomfort and disability can persist following surgery. The elevated symptom intensity level of the patients scheduled for back surgery also separates them from the cholecystectomy group. Chronicity did not appear to be a factor in this difference, as both groups suffered from chronic complaints. Thus the back pain patients were more depressed, and they reported more intense levels of global symptomatology than their cholecystectomy counterparts.

The similar levels of anxiety in both groups reflect preoperative reaction to impending surgical procedure. This similarity in both groups reflects similar styles of coping to the stress of surgery itself, not to the chronic discomfort or pain levels experienced in both groups preoperatively.

An interesting finding is that both surgical groups estimated their pain discomfort in a similar fashion, yet the back patients utilized more postoperative narcotics. Explanation for this difference may reflect both psychological and biologic factors. The increased level of depression in the back surgery group may promote utilization of narcotic medication for an antidepressant effect. Excess narcotic medication has been described in individuals with chronic back pain problems[16]; this study, however, is looking at the acute pain response in individuals with chronic discomfort. All of the back surgery individuals had utilized narcotics in the past to manage their difficulties, whereas the cholecystectomy patients had not. This finding might reflect lowered enkephalin levels in the acute pain phenomena in individuals who have suffered from chronic pain of musculo-skeletal origin. The cholecystectomy group had suffered not from chronic musculo-skeletal pain but from nausea, flatulence and discomfort, which may not be biologically similar to the chronic back pain. Almay et al found that individuals with organic pain had relatively lower endorphin levels than those with psychogenic pain.[17] The low level of endogenous opiates might account for an increased need of narcotic medication postoperatively.

## Summary

In conclusion, previous investigators have utilized heterogeneous surgical populations to study postoperative pain response. This report demonstrates that patients undergoing surgery differ in their acute pain response according to their pathologic condition, even though their levels of acute pain and their personality styles may be similar. The exact reasons for this are unknown but suggest that, where there is a chronic pain condition, postoperative acute pain response may differ from the same response in those who do have chronic pain. These findings suggest that future studies of postoperative pain behavior utilize homogeneous surgical populations.

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# Pulmonary Gaucher's Disease Diagnosed Ante Mortem

Frederick Rahal, MD, and Nancy B. McWilliams, MD,
*Richmond, Virginia*

GAUCHER'S disease is the most frequently encountered sphingolipid storage disease. Inherited as an autosomal recessive trait, it is characterized by the accumulation of the glycolipid glucocerebroside in the reticuloendothelial system, bones and other tissues because of a deficiency of glucocerebrosidase.[1] The adult non-neuronopathic form is most common, may manifest itself in childhood, and disease progression is usually slow. Severe involvement of the lung, while uncommon, may predispose to pneumonia, cause pulmonary hypertension and cor pulmonale, or lead to progressive pulmonary insufficiency from obliteration of alveolar spaces with Gaucher cells. This report describes the clinical, biochemical and pathological findings in a child with massive pulmonary infiltration with Gaucher cells diagnosed ante mortem by needle aspiration of the lung.

**Case Report**

C. T., a 26-month-old black male, was admitted to the hospital because of respiratory distress. Past medical history was positive for recurrent bouts of bronchitis and asthma. Developmental milestones were normal. Pertinent physical findings included a barking cough, bilateral wheezing, marked hepatosplenomegaly, generalized shotty lymphadenopathy and a normal neurological examination.

Laboratory evaluation revealed anemia, thrombocytopenia, and leukocytosis with a left shift. A bone marrow aspirate was positive for Gaucher cells. Serum acid phosphatase was 5.9 u/l, and the glucocerebrosidase activity of cultured skin fibroblasts was 4.5 nmol/mg protein/hour, within the range of 2.8-9.5 nmol/mg protein/hour characteristic of Gaucher's disease. Radiographic findings included bilateral bronchopneumonia and normal bones.

The only sibling, age 1, has hepatosplenomegaly, no pulmonary symptoms, and is neurologically normal. Bone marrow aspirate and cultured skin fibroblast glucocerebrosidase activity confirmed the impression of Gaucher's disease in this child as well.

The patient responded slowly to antibiotics and bronchodilators, and at discharge only patchy left upper infiltrates persisted radiographically. Four months later the child was readmitted to the hospital because of worsening pulmonary symptoms. Examination disclosed cyanosis, digital clubbing, inspiratory and expiratory stridor with retractions, and a liver and spleen palpable 9 and 12 centimeters below their respective costal margins. Arterial blood gases with the patient breathing room air showed severe hypoxemia-$p0_2$ 30, $pCO_2$ 33, with 56% $O_2$ saturation. Chest radiograph showed bilateral reticulonodular parenchymal disease (Fig. 1). A transthoracic thin needle aspiration of the lung was performed, revealing many Gaucher cells (Fig. 2).

Over the next two months respiratory insufficency

From the Department of Pediatrics, Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Rahal at 5901 Lakeside Avenue, Richmond VA 23228.

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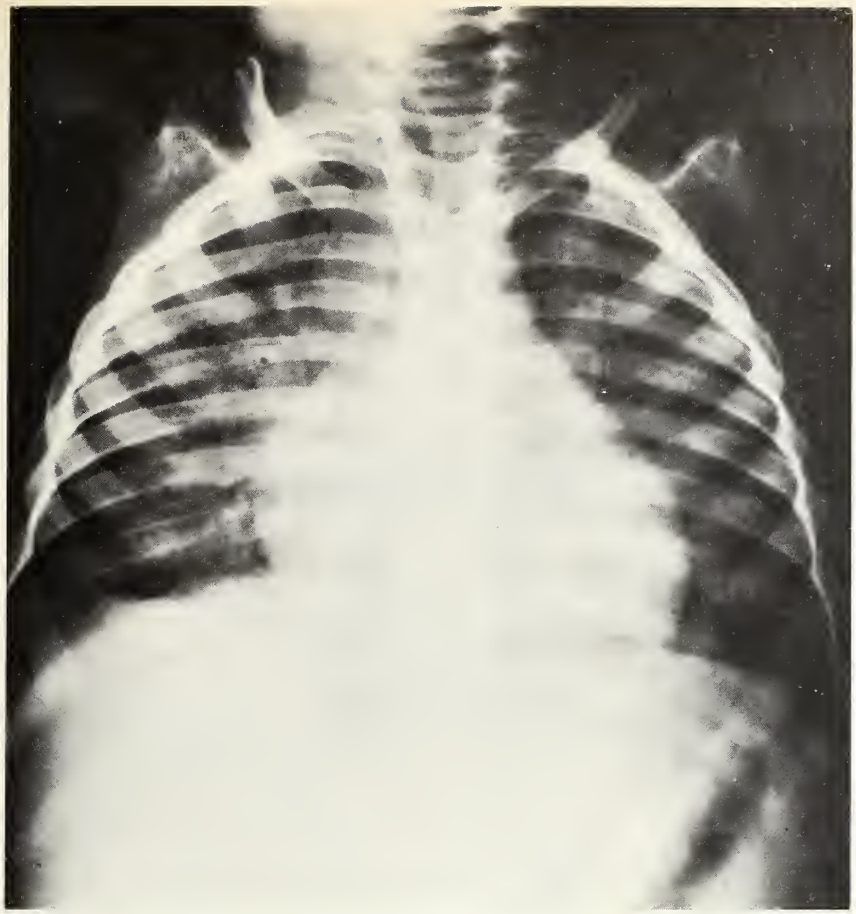

Fig. 1. Chest radiograph showing bilateral reticulonodular parenchymal disease.

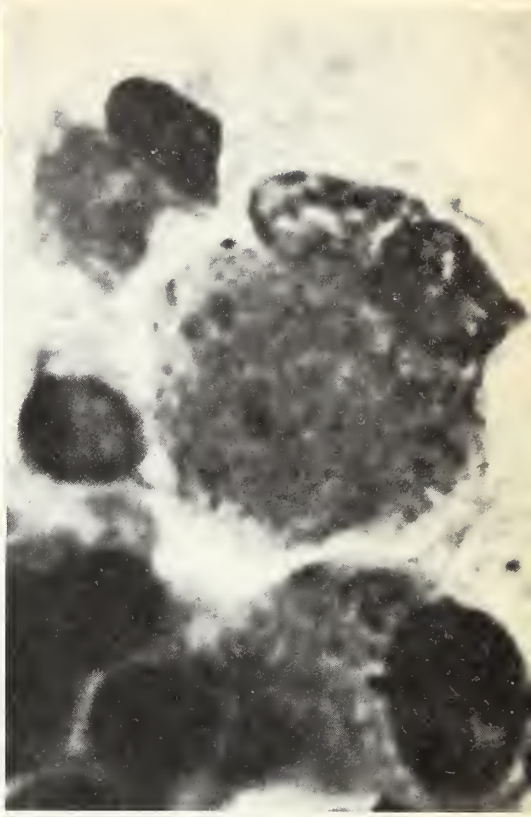

Fig. 2. Gaucher cells in thin needle aspirate of lung showing eccentric nuclei and fibrillar cytoplasm (PAS stain, X 1000).

progressed despite supportive therapy, and the child expired at 34 months of age.

At autopsy there was chronic interstitial pneumonitis, fibrous septal thickening, and a massive accumulation of Gaucher cells in the alveolar spaces of both lungs. Prussian blue reaction was positive for large amounts of iron within these cells, but was negative for iron in the Guacher cells within other organs. There was cardiomegaly with right ventricular hypertrophy, indicating long-standing pulmonary hypertension. The reticuloendothelial organs were diffusely infiltrated with Gaucher cells.

## Discussion

Rapidly progressive pulmonary insufficiency from infiltration of the lung with Gaucher cells is a rare complication of this disease. Schneider et al[2] in 1977 described three cases in young children with the non-neuronopathic disease, and in their review of the literature found only four other patients in whom the clinical course was clearly distinct from the neuronopathic form. Although there is no specific therapy, an ante mortem diagnosis of pulmonary Gaucher's disease enables the physician to prepare the family for the almost certain demise of the affected person and emphasizes the need for genetic counseling and prenatal diagnosis. Research into enzyme extraction and administration holds promise that replacement therapy may one day play a role in this disease.[3]

The authors are grateful to Dr. Kurt Hirschorn, who performed the glucocerebrosidase assays; Dr. William J. Frable, who performed the thin needle aspiration; and Ms. Gwendolyn Warfield, for assistance in preparing the manuscript.

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# Fournier's Idiopathic Penoscrotal Gangrene

Ranes C. Chakravorty, MD, *Salem, Virginia*

SINCE Alfred Fournier's initial description in 1833,[1] about 300 cases of idiopathic fulminating penoscrotal gangrene have been reported. But in about half of these patients, the disease has been ascribed to such associated conditions as arteriosclerotic disease, alcoholism, hepatic cirrhosis, and diabetes,[2] while others have been instances of scrotal involvement secondary to an area of adjacent sepsis (perirectal abscess, pelvic abscess from perforated diverticula or rectosigmoid cancers, etc.),[3] and according to Fournier's criteria, such patients do not qualify.

This article presents a case of primary idiopathic fulminating penoscrotal gangrene with no associated conditions, thus illustrating the clinical features set forth by Fournier.

**Case Report**

An 84-year-old Caucasian male was admitted to the Veterans Administration Medical Center in Salem with a history of bright red bleeding from the rectum for 24 hours. Superior mesenteric angiography demonstrated a small vascular ectasia of the cecum. Pitressin administered through the angiographic catheter controlled the hemorrhage. Forty-eight hours after the bleeding had stopped and the catheter had been removed, the patient became febrile (39.2°C). An erythematous area was noted on the skin of the scrotum extending to the ventral part of the shaft of the penis. Over the next 24 hours practically the whole of the skin of the scrotum and the skin of the underlying part of the penis became a yellowish, leathery slough. A tissue biopsy showed 4+ *Pseudomonas aeruginosa*, 4+ *Escherichia coli*, Group D enterococcus, and *Clostridium perfrigens*. The patient was treated with supportive measures, including hyperalimentation, systemic gentamicin and penicillin G (as indicated by the sensitivity studies), and local debridement and wound care. The slough separated, leaving a raw, granulating area in about five days, the testes being totally unaffected (Fig. 1). The patient subsequently had plastic repair of the area of skin loss. The shaft of the penis and testis remained intact.

From the Veterans Administration Medical Center, Salem VA 24153, where Dr. Chakravorty is chief of the surgical service.

Submitted 3-18-80.

**Discussion**

Jean Alfred Fournier was born in Paris on May 12, 1832. He became an excellent classical scholar and in 1855 succeeded in the difficult examination for internship in the Paris hospitals. He was assigned initially to P. Ricord, chief surgeon at the Hôpital du Midi. A pioneer in venereology, Ricord was a lasting influence on the course of Fournier's career, and in 1860, Fournier was graduated from the University of Paris Medical School with a thesis on syphilitic contagion.

Fournier had a brilliant teaching career, being the first occupant of the Chair of Syphilis and Skin Diseases, created in 1880 at the Hôpital St. Louis, where he taught and practiced from 1876 to his retirement in 1902. President of the French Society of Dermatology and Syphilography from 1902 to 1909, Fournier was a member of many French and foreign societies, and was made a member of the Academy of

Medicine in 1879. His Friday clinics at the Hôpital St. Louis were popular and, combined with his many publications, played a large part in establishing the specialty of dermatovenereology and added much to our understanding of these various disorders, especially syphilis. Some of the more important of his many contributions to syphilology were the clarification of the types of cerebral syphilis, particularly the syphilitic basis of locomotor ataxia and general paralysis of the insane. He also elucidated the hereditary transmission of syphilis. Fournier died on December 25, 1914 during the first few months of World War I.[1,2]

In 1883, Fournier presented a young man with an inexplicable and rapidly progressive gangrene of the external genitals. This was the fifth such patient seen by him, another similar case having been reported by a colleague. He reviewed exhaustively causes of penoscrotal gangrene and concluded that the patient did not fit into any of the recognized patterns.[3] In a subsequent paper, he summarized the clinical features in all of these five patients as fulminating penile gangrene.[4]

While Fournier's patients were between 28 and 40, subsequent patients have had a wide spectrum of age, but all have an initial burning sensation in the penis or lower abdomen, followed by spreading redness and, within 24 to 36 hours, extensive gangrene of the penoscrotal skin. The gangrene in reported cases has usually been yellowish and leathery, though on occasion red and black color has been noted. Demarcation is generally complete in two to three days. The severe systemic manifestations of high fever, nausea and vomiting usually improve quickly after the separation of the slough. Two of Fournier's five patients had generalized purpura.

Many different types of anaerobic and aerobic organisms have been cultured, the most common being *Pseudomonas* and *E coli*. Microaerophilic streptococci have been looked for but seldom documented, probably because of technical difficulty. In the past the mortality from the condition was as high as 50%; however, with early diagnosis, modern methods of correcting the effects of severe sepsis and the availability of specific antibiotics, the mortality rate has fallen to between 7% and 25%. Appropriate supportive measures and antibiotics should accompany debridement of the gangrenous tissue. Because of the independent blood supply of the testes, these remain healthy and do not need to be sacrificed. Once the dead tissue has been removed, granulation tissue generally appears quickly, and plastic closure of the denuded area is not a technical problem, since a surprising amount of coverage can usually be obtained from the remaining scrotal skin.

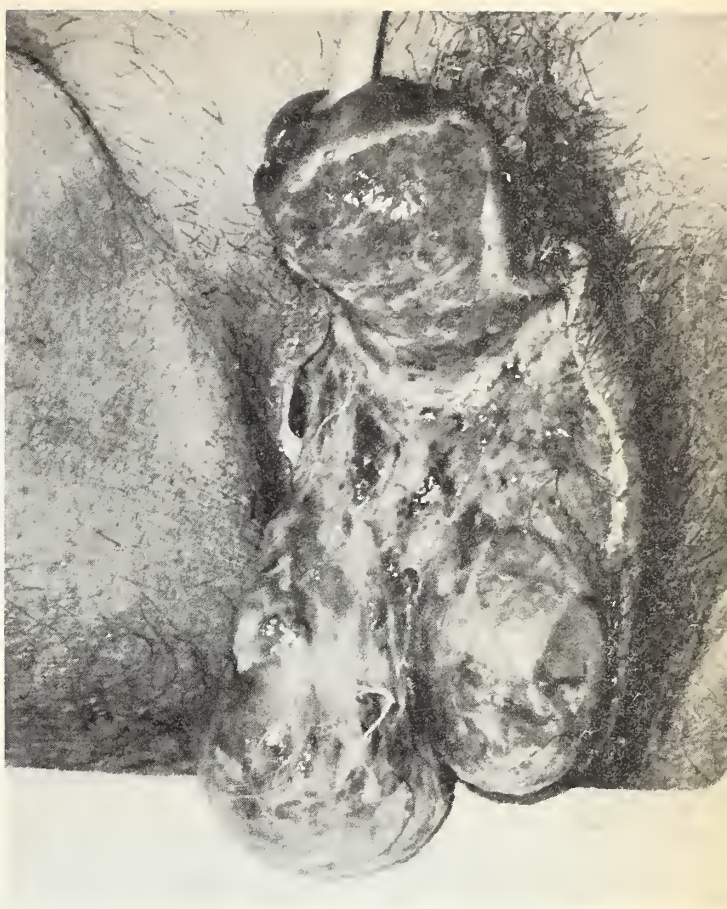

**Fig. 1. Appearance after full development of gangrene and subsequent debridement.**

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# Burkitt's Lymphoma in Africa: Case Report

Alagumba L. Nwoku, MD, and Danny R. Sawyer, DDS,
*Lagos, Nigeria, West Africa*

IN contrast to the small time-space clusterings of Burkitt's lymphoma reported in Virginia[1] and elsewhere in the United States, the disease is a colossus in African children 2 to 14 years of age and constitutes nearly 50% of all malignancies in the central part of the African continent.[2] The reason for this virulence is poorly understood, but current research suggests that Burkitt's lymphoma is a response to Epstein-Barr virus infection, to which African children do not develop early immunity.

**Clinical Features**

Burkitt's lymphoma is often multifocal and predominantly extranodal. Common sites of involvement include the jaws, facial bones, long bones, abdominal and/or pelvic viscera, retroperitoneal soft tissues, thyroid and salivary glands and the central nervous system. In older African patients, as in older American patients, abdominal involvement dominates the clinical picture. In African children, the jaws are more frequently involved than any other site, whereas jaw involvement in American patients is uncommon.[3,4]

From the Department of Oral Surgery and Pathology, College of Medicine, University of Lagos, PMB 12003, Lagos, Nigeria, West Africa. Address correspondence to Dr. Nwoku.

Dr. Sawyer is teaching in Africa under the sponsorship of the Southern Baptist Foreign Missions Board. He is a graduate of the Medical College of Virginia's School of Dentistry and holds a PhD from the Medical College of Virginia's Department of Oral Pathology.

Submitted 3-3-80.

This jaw involvement may succeed or follow the clinical appearance of the tumor elsewhere. Adatia notes in Ugandans that the maxilla is twice as frequently involved as the mandible, with the posterior

**Fig. 1. Photograph of patient in case report, showing extent of lesion. Tongue is sandwiched between tumor mass and left cheek. Blood stains on face and intraorally. Keloid on right cheek is scarification.**

portion the usual site[5]; but Braband, in his review of 339 jaw tumors in Nigeria did not find any predilection for a particular jaw site. Simultaneous involvement of all four quadrants is a rather common finding.

The initial lesions of jaw involvement are usually noted intraorally. Loosening of the teeth, with tooth displacement and expansion of the alveolar ridge, is observed. Pain is minimal and paresthesia or anesthesia is infrequently manifested. Maxillary Burkitt's lymphoma may involve the orbit and cause proptosis; the tumor eventually erodes through the bone to produce soft tissue swelling. Skin ulceration is rarely seen. The lesion is osteolytic, and one of the earliest roentgenographic signs is the loss of, or break in, the lamina dura. An early roentgenographic sign of maxillary lesions is a blurring of the shadow of the antrum. Subperiosteal new bone formation is seen on occasion and may give a sun-ray appearance.

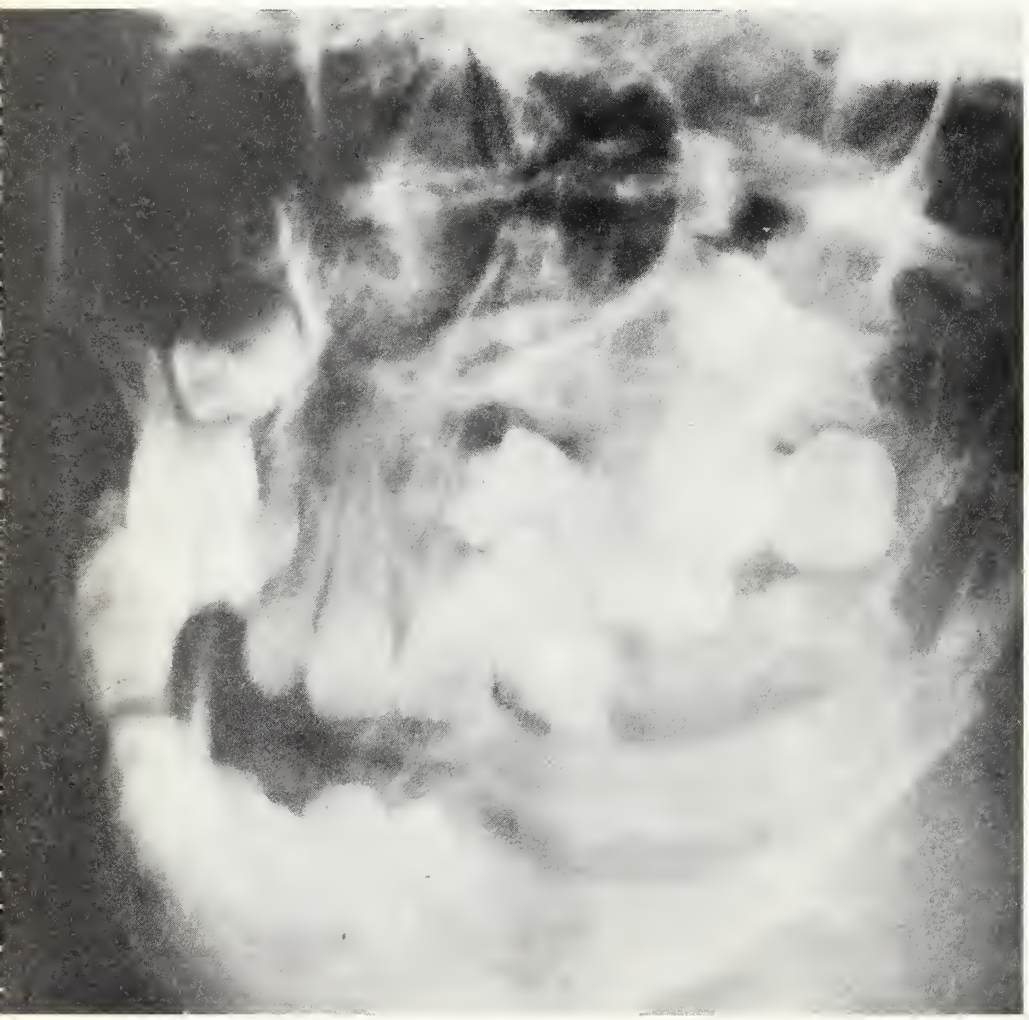
**African Case Report**

In the Department of Oral Surgery and Pathology of the College of Medicine, University of Lagos, Nigeria, there are 849 biopsy reports on file, dating from 1969 to 1979. Of this number 16 reports are of cases of Burkitt's lymphoma, one of them the following case.

An 8-year-old girl presented on February 5, 1979 at the accident and emergency center of the Lagos University Teaching Hospital with a history of episodic intractable bleeding from a massive jaw lesion. She was referred to the oral and maxillofacial consultant surgeon, who immediately admitted the child.

There was no reliable informant, but from the little that could be gathered, the swelling had started gradually two years previously and then assumed a more rapid growth, with massive enlargement within the

**Figure 2A, extreme left below, is a radiograph in postero-anterior view showing gross deformity and destruction of right upper and lower jaws. The teeth appear to be floating both in this view and in Figure 2B, center, an oblique lateral view of the mandible, which also shows the soft tissue mass. The occipito-mental view of Figure 2C, far right, shows opacity of right jaw up to infraorbital margin.**



previous three months. The findings on admission were of an extensive swelling of the right half of the face involving the infraorbital margin superiorly to the pre-auricular area posteriorly and down to the angle of the mandible to the chin. A hypertrophic scar, which may be considered as keloid, was present at the right cheek. The mouth was completely filled with an ulcerated and bleeding mass which had pushed the tongue laterally to the left side (Fig. 1). There was no significant lymphadenopathy, slight pallor, no jaundice. The chest was clinically clear. The spleen was enlarged, firm, smooth, non-tender and palpable 6 mm below the left costal margin. There was no hepatomegaly.

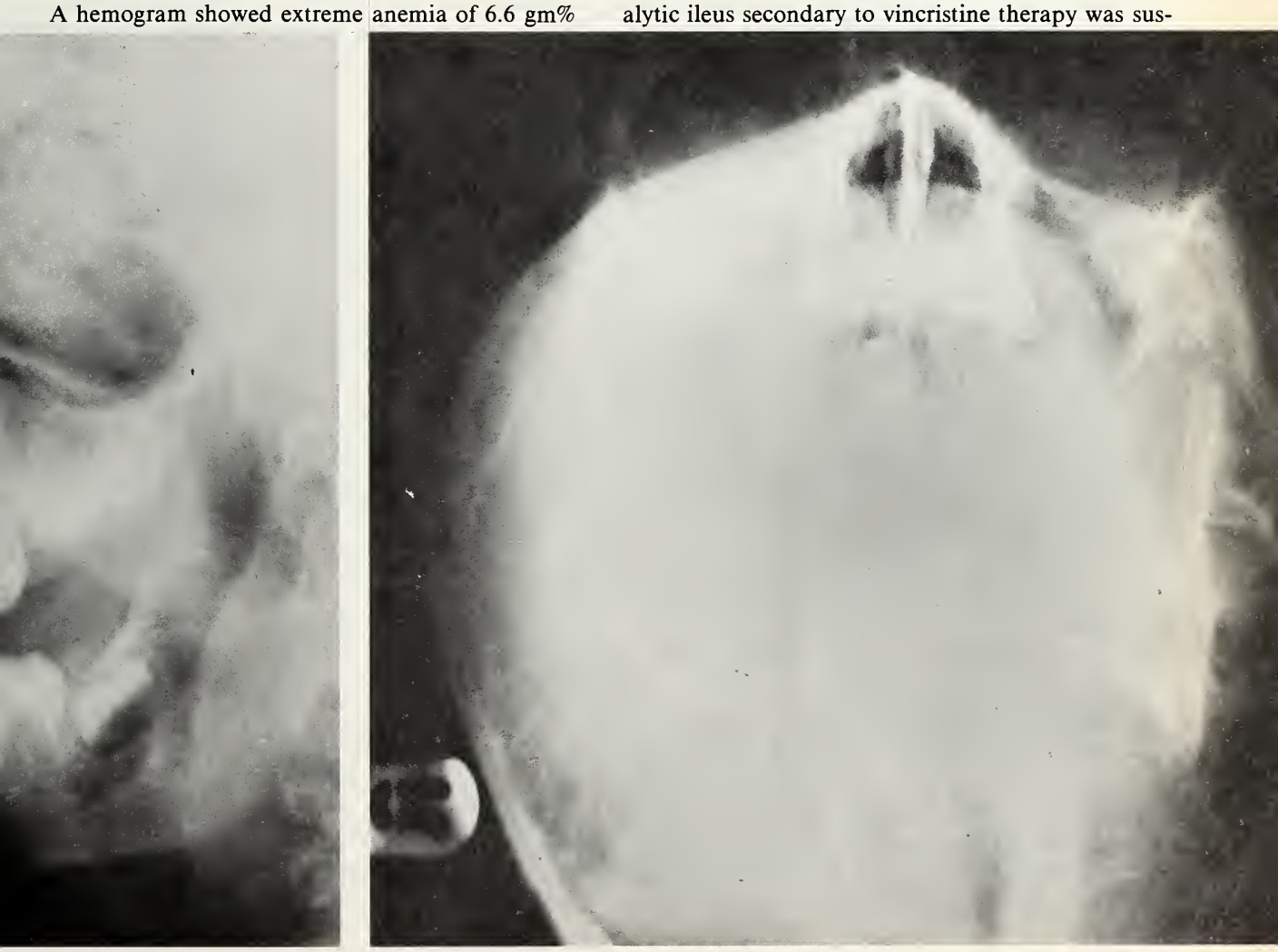
An x-ray examination clearly revealed bony destruction of the right maxilla and mandible. The lamina dura of the alveoli were completely destroyed, and the teeth in the right lower quadrant appeared to be in disarray and floating (Fig. 2). A clinical diagnosis of Stage C Burkitt's lymphoma was made and later confirmed histologically.

A hemogram showed extreme anemia of 6.6 gm% Hb and WBC of 5,600/cc. Differential white blood count showed moderate anisocytosis, with macropolychromatic cells and few microsphenocytes. Platelet count was 370,000/cc. The bone marrow aspiration showed depletion of iron stores but no infiltration.

To improve the anemia the patient was transfused with 2 pints of whole blood and chemotherapy was instituted; this consisted of intravenous application of an initial dose of 820 mg cyclophosphamide and 2 mg of vincristine. In addition, 15 mg methotrexate was administered by mouth daily for 3 days and 50 mg allopurinol tid for 10 days.

By 26 February, the patient had improved slightly, with a regression of the tumor mass. Swallowing was possible, but she still looked pale and was transfused with 2 units of packed cells.

On 28 February the patient complained of pain at the epigastrium. The abdomen was distended and tender, with diminished bowel sounds. Moist basal sounds were heard at the lungs. She was pyrexic. Paralytic ileus secondary to vincristine therapy was sus-



pected. Later in the same day, generalized non-pitting edema developed. With the administration of 40 mg furosemide IM daily for 3 days, potassium chloride 600 mg daily, and 500 mg ampicillin and cloxacillin q6hrs, the abdominal distension and perpheral edema subsided. The temperature also came down to 36.5° C by March 2.

The patient's condition remained poor, however, and death occurred on 9 March.

**Discussion**

In the University of Lagos Hospital, combinations of cyclophosphamide, methotrexate and vincristine have been found efficacious in the treatment of Burkitt's lymphoma, and these were employed in this patient. In general, this combination achieves a dramatic effect within 48 hours if the tumor is at its initial stage and the size small. The cases that come early do very well.

The most resistant cases and those with poor prognosis are the ones involving abdominal organs or the central nervous system. The case presented here came at a very late stage with evidence of abdominal dissemination. This is not uncommon in Africa, where most patients try the traditional healers before making a hospital visit. The keloid on this girl's right cheek was indicative of an earlier scarification made by such a healer. Furthermore, the histological diagnosis confirmed Burkitt's lymphoma of a highly malignant grade in this patient, and the fatal outcome could be anticipated.

The authors are grateful for the collaboration of Dr. I. Akinsete, consultant hematologist, and Mr. F. A. Fasan, chief medical laboratory technologist.

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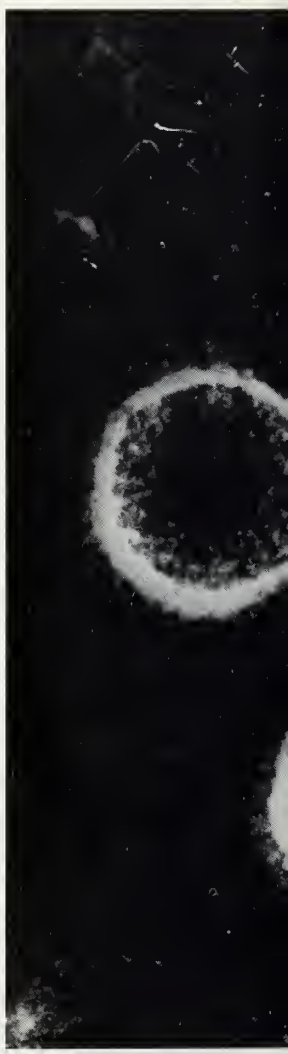
# In Africa, Clues to a Connection

EPSTEIN-BARR virus, accepted as a major culprit in infectious mononucleosis, is now almost certainly implicated in Burkitt's lymphoma, according to researchers who spoke in Atlanta, Georgia, at the recent International Conference of Human Herpesviruses. In Africa, site of dramatic incidence of Burkitt's lymphoma in children, the connection has been investigated by Dr. Guy Blaudin de Thé, oncological epidemiologist who is a member of the Alexis Carrell Faculty of Medicine in Lyons, France.

Interviewed by writers for *Medical World News*,[1] Dr. de Thé pointed out that the natural target cells



**At right, Epstein-Barr virions from a Burkitt's lymphoma tissue culture, magnified 250,000 times by an electron microscope, reveal their hard-core, 20-sided nucleocapsids, surrounded by antigen-studded membranes. The dark spots visible on the light centers of three spheres are nucleic acid, which renders them infectious, although other particles of this herpesvirus are not, explains Dr. Guy de Thé, the French epidemiologist whose research yielded this picture and who gave permission for its reproduction here.**

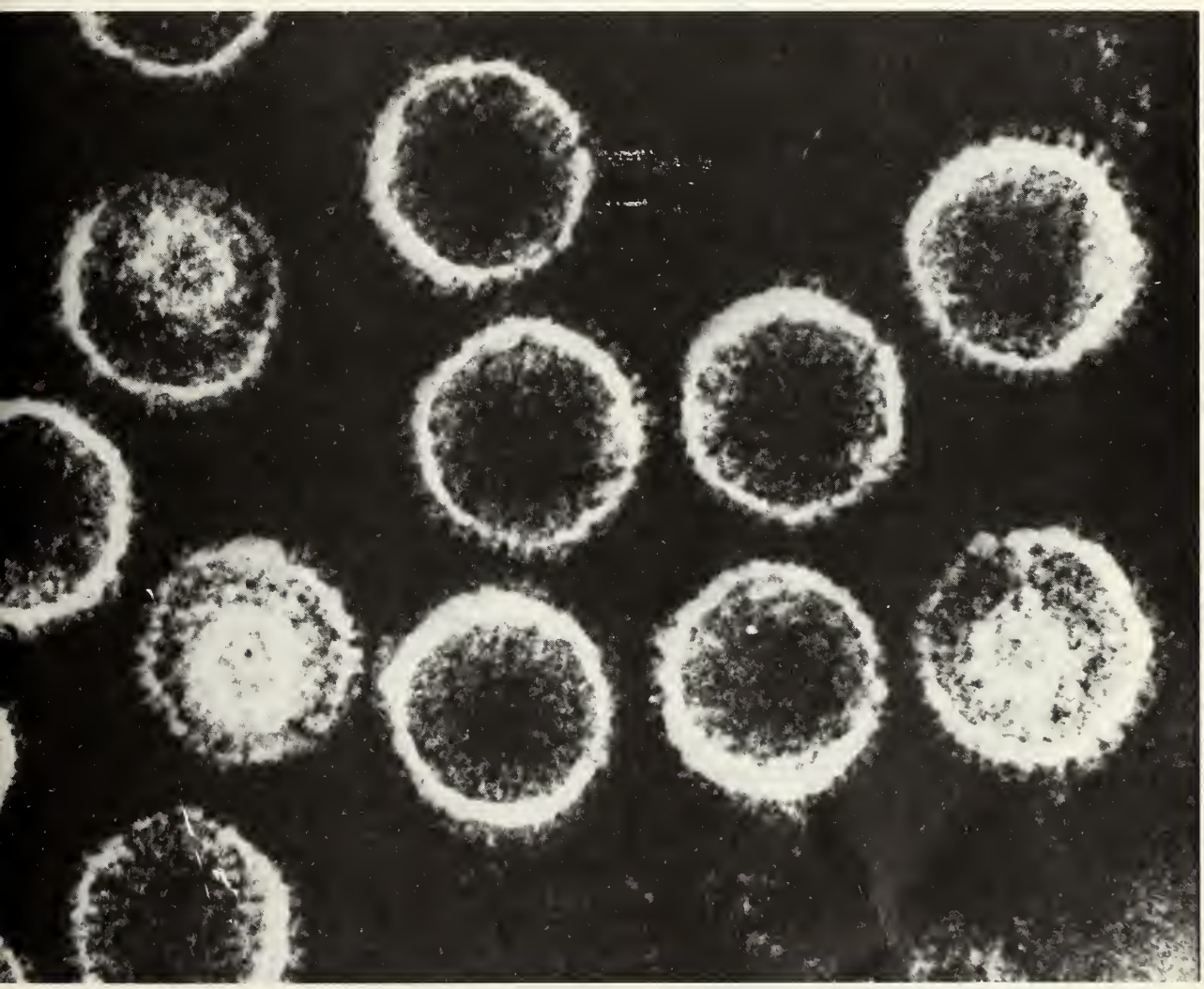
for primary Epstein-Barr infection are located in the oro- and naso-pharyngeal mucosa, where adults with acute infectious mononucleosis shed the virus in their saliva; meanwhile, the virus infects B lymphocytes and may remain latent, probably in the lymph nodes, for life. Some scientists believe the virus has a unique ability to transform B lymphocytes into "immortal" cells that can divide and live forever in culture and say this is indicative of the virus' oncogenic potential.

In American children, Epstein-Barr virus may set up subclinical infection early in childhood, raising antibodies and conferring immunity to infectious mononucleosis, or, if this process does not occur, they may succumb to infectious mononucleosis as post-adolescents after a direct high-titer dose of the virus delivered by osculation with seropositive partners.

But in equatorial Africa, neither of these patterns seems to occur; instead, youngsters get Burkitt's lymphoma as pre-adolescents. The jaw tumors in these African victims grow with astonishing swiftness, sometimes doubling in size in 24 to 48 hours, and finally kill by metastasizing.

Working in Uganda between 1972 and 1977, Dr. de Thé analyzed blood taken from some 45,000 children aged 1 to 8 years and reported that the entire population had raised antibody against Epstein-Barr virus antigens, but those destined to get Burkitt's lymphoma already had titers eight to ten times higher than normal seven to 54 months before their jaw tumors emerged. He concluded that a strong and prolonged immune response to Epstein-Barr virus infection was a key factor in Burkitt's lymphoma and that malaria, known to suppress immune defenses, might be a co-factor. —ANN GRAY

1. Defusing herpesvirus time bombs. Medical World News, May 12, 1980, pp 58-69



VIRGINIA MEDICAL
EDITORIAL

# Malpractice Suits: A Call for Initiative

THE attempts to date of the medical community to resolve the malpractice problem do not seem to be successful. Perhaps the gains in legislation following the crisis situation of the mid-1970s have made physicians complacent. It certainly appeared, at that time, that the malpractive situation nationwide was improving, but a recent American Medical Association newsletter cited the National Association of Insurance Commission report for 1975-1978 to demonstrate that the situation was then, in fact, continuing to deteriorate. The figures for that period show there was an increase of 70% in the average award granted, and, of more importance, a 73% increase in the cost of defending against a malpractice suit. And in September, 1980, The Medical Society of Virginia's malpractice insurance carrier, St. Paul Fire & Marine, was given a premium rate increase of about 15% because, according to the submitted figures, of the adverse trend in both frequency of claims and the amount per claim.

Certainly in Virginia we now have significant legislation aimed at preventing the frivolous case from reaching court. This legislation has established the malpractice hearing committees, which have deterred frivolous cases and have resolved those cases that had merit in a more rapid, perhaps less costly, manner. But the frivolous cases still occur, for these hearing committees do not have the force of law but function only in an advisory capacity.

Indeed, more stringent legislation is needed to eliminate frivolous cases. The state of Florida recently enacted legislation designed to discourage frivolous claims by allowing the court to award "reasonable attorney's fee to the prevailing party in any civil action . . . on account of alleged malpractice . . ." This statute encourages all parties to continue to evaluate the progress of the legal action as it unfolds, since the loser will be liable for legal fees of the prevailing parties, and a case that has no appreciable merit will not be pursued indefinitely in the hope of an out-of-court settlement to cover costs.

Another significant problem inherent in medical malpractice suits is that of the "expert" witness whose record is one of repeated testimony for the plaintiff. These physicians are well known to those members of the legal profession who specialize in medical malpractice. They need to become better known to their physician colleagues, who are put in jeopardy by their testimony. Certainly contrary medical opinions given in an honest and forthright fashion are needed in those cases which merit the designation of malpractice, but should the medical profession not be suspicious of medical "experts" who repeatedly testify for the plaintiff?

I propose that The Medical Society of Virginia appoint a board of practitioners to review "expert" medical testimony in malpractice cases that involve members of the Society, and especially in those cases that have been settled out of court. Thus a check on the present system of testimony would be established. Moreover, the individual practitioner would be able to discuss the merits of a contrary opinion with this

board instead of relying on his insurance carrier, lawyer or friends for repudiation of the "expert" witness. Furthermore, a confidential file of settlements over $5,000 should be reviewed by this panel in order to assemble some data that may be of help in avoiding further litigations.

The medical community must be aware of the continuing problem of medical malpractice actions and, through The Medical Society of Virginia, take the necessary initiative to diminish the abuses and injustices of the system as it stands today.

S. D. BARRANCO, MD

3708 South Main Street
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# CALOMEL

## 400 BC -- 1955 AD

### IT LED AN ACTIVE AND PRODUCTIVE LIFE.

THE element mercury was known to the ancients. The name by which we know it and its symbol, hydrargyrum (Hg), arrived in our language by way of Latin and Greek.

Calomel is a salt of mercury. My first experience with it was while working in a small-town drug store at the age of 17. The owner of this store had a formula for a cathartic pill containing 2½ grains of calomel plus other ingredients of a purgative nature; a pharmaceutical house manufactured large quantities of these pills for him, and he put them in round pill boxes, 30 pills to each box, and sold them @ 25¢ under the name "Pronto Liver Pills." They really produced results—pronto.

*I spent nine years in that drug store. During the first couple of years there were no electric lights; streets and stores were lighted by gas and homes by kerosene oil lamps with wicks. One of the local physicians was a brother-in-law of the owner of the drug store; he had a big practice. This was a few years before the automobile, and he made calls either in a horse and buggy or on horseback. He would bring his leather saddle bag in and tell me to "Fill 'er up," which I did many times. Among other things, he carried calomel, quinine, ammonium chloride, fluidextract ergot. He would measure out a dose of calomel on the end of his pen knife and mix it with a little bicarbonate of soda for the patient. Even after he bought an automobile, he still used this bag.*

Speaking of results: After taking calomel, one headed for the woods. For emergencies, there was a receptacle under the bed, or, if time permitted, one might make it to the little house behind the house. Later, the days of the plumber arrived with a more modern receptacle, complete with noise.

From about 1909 and up to 1955, calomel could be bought over the counter. Doses of it could be prepared by the pharmacist. Many adults took a dose of calomel every six months, and children as young as six months old were given it. Considering the circumstances of an earlier time, calomel might once have been termed "preventive medicine."

*In 1912 I matriculated at the University College of Medicine in Richmond. My matriculation number, 808. During my year there I worked part-time in a drug store at the corner of Fifth and Marshall Streets. Most students did this, to gain practical experience and financial help. In 1914 I took the Virginia Board of Pharmacy examination and have been a registered pharmacist ever since. The only requirement to take the Board exam then was four years of practical experience in a retail drug store. My registration number is 1098. Still in force!*

In an old 1800 United States Pharmacopeia, I find fifteen formulas for compound cathartic pills. There are directions for preparing 100 pills of each, but, strangely, no dosage on any product in this Pharmacopeia is given. These are the fifteen listed, each one preceded by the word "pilulae": aloes and asafetida, aloes and ferri, aloes and mastiches, aloes and myrrhae, antimony compositae, asafetidae, catharticae compositae, catharticae vegetabiles (no calomel in this one), ferri carbonatis, ferri iodid, opii, phosphori, rhei, rhei compositae.

Originally it was customary to follow a plain dose of calomel on the morning after with a dose of castor

oil, Epsom salts or citrate of magnesia, to relieve the gripes following calomel doses. But beginning about 1915, certain other drugs were added to calomel to achieve this relief. I have on file over 200 original prescriptions for these pills, written by physicians of the area and filled in the store in Danville in which I worked for over 50 years.

*In 1917 I enlisted in the Army. There were 151 other newly enlisted men at camp on my first night, and each of us was given two compound cathartic pills with calomel in them. Witnesses watched to see that we swallowed them. While they can't be held altogether responsible for my good health the 14 months I was in the Army, those two CC pills were the only medication I took while in the Army.*

I have described some of the pro side of calomel. On the con side, calomel may be said to have died a natural death at an appropriate time. Mercurialism was one of the first industrial diseases to be recognized. Mercury vapors are highly toxic; even at room temperature, sufficient of the metal may be spilled and vaporized in the laboratory or chemical plant to be toxic on long standing. The discovery that mercury is poisonous may have been a warning by nature to eliminate calomel, a mercury salt, from the body before it developed into another kepone affair.

Murder will out.

GLENN B. UPDIKE, SR.

129 Kenilworth Avenue
Danville VA 24541

*On the Way* (watercolor)

JAMES R. BRUNK, MD

# VIRGINIA MEDICAL OBITUARY

## E. B. Pendleton, MD

Dr. Eugene Barbour Pendleton, long-time family practitioner in Louisa County, died January 15 in a Richmond nursing home. He was 95 years old and had continued to attend patients until 18 months ago, when failing eyesight forced his retirement.

Dr. Pendleton's 70 years of doctoring continued in a distinguished family tradition. When, in 1908, he joined his father, the late Dr. Eugene Pendleton, in medical practice, he was the 10th man in the Pendleton family to enter medicine, a line that went back to early in the 19th century. His successor in that line and the first woman in the family to become a physician is his granddaughter, Mrs. Jane Pendleton Wootton of Richmond, wife of The Medical Society of Virginia's current President, Dr. Percy Wootton.

Thought to be the oldest and longest practicing doctor in Virginia, Dr. Pendleton began his practice when house calls were made on horseback over dirt roads or, in the winter, by sleigh. Over the years he delivered more than 2,000 babies in Louisa and the counties nearby. He had been chairman of the Louisa County Medical Society and the county's Welfare Board.

He was many times honored for his unflagging service to his community, but was especially pleased when, on the occasion of his 50th year in practice, Louisa Countians planted more than 100 trees and shrubs and placed a marker in his name in a roadside park called "Pendleton Wayside," near Gilboa Christian Church, the church of which he was long an elder.

## Samuel R. Newman, MD

Dr. Samuel R. Newman, who came to this country from Poland as a young man and, in the American tradition, built a reputation as "dean of the Danville medical community", died December 10, 1980, at the age of 90. Throughout his long and energetic life he was esteemed both as a pediatrician and as a public-spirited citizen.

Born in Warsaw, Poland, Dr. Newman came to the United States in 1909, was graduated from the University of North Carolina in 1915 and received his medical degree from the University of Virginia in 1917. He trained at Sinai Hospital in Baltimore, then practiced in the children's clinics of the Universities of Vienna, Berlin and Paris before settling into his practice in Danville in 1923.

Dr. Newman was showered with honors. In 1954 he was given a citation for 40 years of service to the Public Health Child Care Clinic in Danville, and that same year the Junior Wednesday Club changed the name of its children's clinic to the Samuel Newman Clinic. The Hebrew Union College's Jewish Institute of Religion conferred on him an honorary doctorate of Hebrew letters, and both the United Jewish Appeal and the National Council of Catholic Men recognized him for outstanding leadership. In 1971 he was chosen a recipient of Kiwanis International's Legion of Honor, and the Danville Kiwanis Club not only made him an official honorary member but named him, in 1974, their Citizen of the Year. At graduation ceremonies in 1980, the University of Virginia Medical Alumni Association conferred on him its Thomas Jefferson Award.

Dr. Newman had belonged to The Medical Society of Virginia for almost 60 years, was a lifetime member of the Danville-Pittsylvania Academy of Medicine and belonged to the American Academy of Pediatrics.

## Stuart O. Bennett, MD

Dr. Stuart O. Bennett, general practitioner in Norfolk for more than 50 years, died November 28, 1980, in a Norfolk hospital. He was 77.

Born in Pittsylvania County and a resident of the Tidewater area since 1929, Dr. Bennett was graduated from Randolph-Macon College, received his medical degree from the Medical College of Virginia, then trained at DePaul Hospital, Norfolk. A member of The Medical Society of Virginia for 48 years, Dr. Bennett also belonged to the American Medical Association, Norfolk Academy of Medicine, Academy of Family Practice and Southern Medical Association.

## Ben L. Critzer, MD

Dr. Ben Lake Critzer, director of professional services at Louise Obici Memorial Hospital in Suffolk, died December 11, 1980, in Suffolk. He was 52.

A native of Narrows, Virginia, Dr. Critzer was graduated from the University of Virginia School of Medicine, served with the Navy during the Korean

War, and trained in internal medicine at the Navy Regional Medical Center, Portsmouth. He was a member of the Tri-County Medical Society and had belonged to The Medical Society of Virginia for 22 years.

## L. J. Comeaux, Jr., MD

Dr. Lionel J. Comeaux, Jr., Norfolk, died December 14, 1980, at the age of 36. He was an orthopedic surgeon.

Born in Lafayette, Louisiana, Dr. Comeaux was a graduate of the Tulane School of Medicine and had served as chief of the orthopedic service at the US Navy Hospital, Beaufort, South Carolina. In Norfolk, he started the scoliosis clinic at King's Daughters Hospital and was a consultant at the Southeastern Virginia Training Center. He came to membership in The Medical Society of Virginia through the Norfolk Academy of Medicine and belonged also to the American College of Surgeons, the American Academy of Orthopedic Surgeons, and the Virginia and Hampton Roads Orthopedic Societies.

## Nancy B. King, MD

Dr. Nancy Burfoot King, retired Sandston pediatrician died January 12 at the age of 64.

She was graduated from the Medical College of Virginia School of Pharmacy in 1938, received her medical degree in 1945 from the Medical College of Virginia and trained at Gallinger Municipal Hospital in Washington, DC. After postgraduate training at the University of Minnesota, Dr. King returned to Virginia, where she practiced in Sandston from the early 1950s until her retirement a few years ago.

A member of The Medical Society of Virginia for more than 30 years, Dr. King was also a member of the American Medical Association and the Richmond Academy of Medicine.

## Bernard C. Grigsby, MD

Dr. Bernard C. Grigsby, a native of Russell County, died on Christmas day 1980 in Charlotte, Florida, where he had lived in retirement since 1972. He was 76.

Dr. Grigsby attended Emory and Henry College, was graduated from Bluefield College and received his medical degree in 1933 from the Medical College of Virginia. He entered family practice in Lee County and then moved in 1944 to Bristol, where he worked until his retirement.

He had belonged to The Medical Society of Virginia for 44 years and was also a member of the American Academy of Family Physicians, American Geriatrics Society, American College of Emergency Physicians, Sullivan-Johnson County Medical Society and the Southwest Virginia Medical Society.

## Henry Lee, MD

Dr. Henry Lee, retired Roanoke general surgeon, died December 23, 1980, after a long illness. He was 73.

A graduate of Washington and Lee University, Dr. Lee received his medical degree from Johns Hopkins University in 1930. His training at the Johns Hopkins, Yale New Haven and Cincinnati General Hospitals was interrupted by a tour of duty in World War II with the 110th Army Hospital Unit in Europe. In 1936 he opened a private surgical practice in Roanoke. He helped in the establishment in 1952 of Franklin Memorial Hospital at Rocky Mount, serving later as a member of its board of trustees. After his retirement from private practice in 1974, he served as an adjudication officer with the Veterans Administration Regional Office in Roanoke.

A member of The Medical Society of Virginia for 43 years, he also belonged to the Virginia Surgical Society, American Medical Association and the Roanoke Academy of Medicine.

## Helen Dorsey, MD

Dr. Helen Dorsey, one of Hampton's first female physicians, died December 27, 1980, while on vacation in the Bahamas. She was 66.

A 1939 graduate of the University of Texas, Dr. Dorsey earned her medical degree from the University of Iowa Medical School in 1943 and trained at Norfolk General Hospital in 1943 and 1944.

Following in the footsteps of five generations of practicing physicians, she practiced general medicine in Hampton for more than 35 years. She was a daughter of Dr. Frank Blinn Dorsey, Jr., an internationally known surgeon, and a granddaughter of Dr. Frank Blinn Dorsey, Sr., who founded Keokuk Medical College, later to become the State University of Iowa Medical School.

Listed in "Who's Who Among American Women" and a member of The Medical Society of Virginia for more than 35 years, Dr. Dorsey was also once president of the Hampton Medical Society.

# WHO'S WHO

**Dr. Richard E. Easton,** *Virginia Beach,* is quoted in a feature story comprising a six-page medical news section in the January 16 issue of *JAMA*. Titled "Health care reforms still needed in the nation's prisons," the article is essentially a report of the recent Fourth National Conference on Medical Care and Health Services in Correctional Institutions, at which Dr. Easton moderated a panel dealing with suicide prevention in prisons. Cited as the summary statement for the entire conference was this observation by Dr. Easton: "When we lose commitment to these people [in prisons or jails] who, in my estimate, are totally forgotten except by the people who come to this meeting every year, when they lose us and we lose them, I think the whole society is in trouble."

Dr. Easton is medical director of the Virginia Beach Correctional Center and chairman of The Medical Society of Virginia's Advisory Committee to the Virginia Sheriffs' Association, which was set up recently to assess health care in Virginia's prisons.

At a meeting late last year of the Fredericksburg Area Medical Society, its members honored **Dr. R. C. Ellison, Sr.,** who has been a member of the Fredericksburg Society for 50 years, and the late **Dr. Warren C. Marshall II,** who was killed in November 1980 in a private plane crash and in whose memory the Society presented a scholarship to a nursing student.

At the same meeting these new officers were elected: **Dr. R. W. Jones,** president elect; and **Dr. Frederic A. Phillips,** secretary-treasurer.

**Dr. R. Bryan Grinnan, Jr.,** *Norfolk,* was honored recently for his services to Norfolk's Department of Human Resources. The city's mayor, city manager and other officials presented Dr. Grinnan with a pewter plate which was engraved appropriately to commemorate their appreciation.

New officers of the Virginia Dermatological Society are **Dr. William F. Sowers,** *Staunton,* president; **Dr. Kenneth E. Greer,** *Charlottesville,* vice president; and **Dr. David M. Pariser,** *Norfolk,* secretary-treasurer.

Dr. Sowers has a busy presidential year cut out for him. He was also elected president of the medical staff at King's Daughters' Hospital in Staunton recently, and is serving as president of the Augusta County Medical Society.

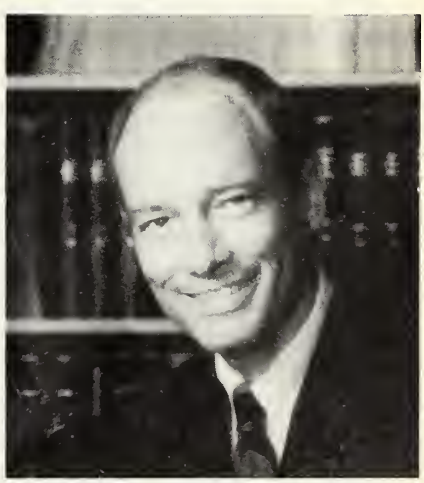
**Dr. Alex P. Yadao,** *Alexandria* surgeon, has been elected a trustee of the American College of International Physicians. A graduate of the University of Santo Tomas in the Philippines, Dr. Yadao is governor of the Association of Philippine Practicing Physicians in America.

Three new members joined the board of commissioners of the Joint Commission on Accreditation of Hospitals recently, and one of them was **Dr. William S. Hotchkiss,** *Norfolk.* Dr. Hotchkiss, a Past President of The Medical Society of Virginia and now secretary-treasurer of the American Medical Association's board of trustees, was appointed to the Commission for a three-year term by the AMA.

**Dr. Roger W. Jones,** *Williamsburg,* has been elected chief of staff at Williamsburg Community Hospital to succeed **Dr. George L. Oliver.**

**Dr. Jay Y. Gillenwater,** *Charlottesville,* has been named the recipient of the National Kidney Foundation's 1980 President's Award. Chairman of the Department of Urology at the University of Virginia, Dr. Gillenwater is also chairman of the Foundation's scientific advisory board and its council on urology.

**Dr. Richard E. Easton**



**Dr. Jay Y. Gillenwater**

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VIRGINIA MEDICAL

April 1981, Volume 108, Number 4

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# Disabled Virginians Bring New Life to Sheltering Arms

SHELTERING ARMS HOSPITAL, from its founding in 1889 the only free general hospital in Virginia and one of the few such in the world, has assumed another distinguished role: It is now the Virginia Rehabilitation Center for Adults. The change became official four days into 1981, after a brief closure to alter and fit the hospital's physical plant in Richmond.

In the Sheltering Arms tradition, patients will be accepted for rehabilitation regardless of their ability to pay. Otherwise, acceptance is selective according to the patient's problems.

The offered treatment is short-term, and it is comprehensive. Available for the disabled patient are physical, occupational and speech therapy; psychological evaluation and psychiatric counseling; pharmacological and dietary instructions; prescriptions for wheelchairs, prostheses, ortheses and other aids; and social services. There is even instruction in adapted sports and other leisure activities that present obstacles to the disabled patient.

Photo by Tracy B. Culpepper

The changeover from general hospital to rehabilitation center began in 1972, when a long-range planning committee was asked to study the facility's future. The advent of Medicaid and Medicare in the 1960s had drastically reduced the hospital's patient constituency, but it was the ballooning cost of medical care in the 1970s that took a terminal toll. Because of the large amount of volunteer services donated to the hospital and because physicians had traditionally provided patient care at no fee, Sheltering Arms had always shown a much lower per diem cost than most hospitals; but the steep rise in costs obliterated this advantage and even forced the hospital to cut its services. In recent years 20 of its 52 beds were closed.

The decision to become a rehabilitation center was made in 1979. Sharing in that decision was Richmond Memorial Hospital, to which Sheltering Arms is physically attached and which has supplied personnel to the smaller hospital in a highly cooperative relationship.

One of those who participated in

# VSBUREAU

the changeover plan was Dr. Charles M. Caravati, Sr., who has been associated with Sheltering Arms since he began practicing medicine in 1924 and who is now the only physician on its board of directors. He recalls the trepidation with which the board awaited the Center's opening. Would there be patients? Patients there were indeed—six of them the first week, an excellent instant acceptance, and at the end of four weeks there were 14 patients, with an additional 12 waiting for admission.

Full-time medical director of the new center is Dr. Charles H. Bonner, who was lured from an impressive list of duties in the Department of Physical Medicine and Rehabilitation at Ohio State University College of Medicine, Columbus. He is a Philadelphian with a medical degree from the Royal College of Surgeons in Dublin, Ireland.

Rehabilitation is a modern concept in medicine, Dr. Bonner pointed out in a recent communication to VIRGINIA MEDICAL, for in the past, life or death was the only medical issue. The word "rehabilitation" itself, although derived from the Latin roots "to make well again", was not a word in Rome, and when in medieval times it came into usage, it meant to reestablish the good reputation of a person in the eyes of the church.

Exercise as prescribed treatment entered American practices in the 1920s when the American Medical Association founded what is now known as the Council on Physical Medicine and Rehabilitation. In 1946 New York's Bellevue Hospital opened the first hospital department of physical medicine and rehabilitation. As rehabilitation entered a period of rapid growth following World War II, the Medical College of Virginia was one of three major medical centers federally funded to teach rehabilitation.

Recently this country's disabled persons have made themselves heard and seen as they campaigned for wheelchair access to public buildings and other such amenities, and athletic events in which the competitors are disabled have become increasingly popular. In all these activites, disabled persons have brought to public attention the high degree of self-sufficiency and self-esteem they can attain with today's rehabilitative techniques.

Now Sheltering Arms Hospital reaches out to disabled Virginians with these techniques, offering them the prospect of physical restoration and the spiritual lift it brings.

## *Another Top Award for Va Med*

For the second time in five years, VIRGINIA MEDICAL has won a first prize for excellence in design and editorial content in the Sandoz Medical Journalism Awards. The 1981 award repeats the blue ribbon won in 1977 in the category of state medical journals with circulations over 3,000. Once again, for this sixth annual Sandoz competition, the judges were professionals of national reputation in the publishing field. They liked the November 1980 issue, the one with Cartoonist Gary Brookins' big HMO bird on the cover. (A new Brookins cartoon appears on page 271 of this issue.)

The award will bring a second bronze plaque to VIRGINIA MEDICAL's offices and another check for $500. These will be presented to the Editor, Dr. W. T. Thompson, Jr., by a Sandoz representative at the 1981 Annual Meeting in Norfolk.

Part of a continuing program conducted by Sandoz Pharmaceuticals to encourage superior medical editing and writing, the awards attract entries from all over the country. Other categories in which winners are designated include state journals with circulations under 3,000; journals and newsletters of city and county medical societies; and publications of hospitals and other professional health organizations.

Heart of the Sandoz program is a series of teaching workshops, at which medical editors can learn from experts how to enhance both graphics and text of their periodicals. Since 1977 The Medical Society of Virginia has been sending VIRGINIA MEDICAL's Managing Editor, Ann Gray, to these workshops.

## *Eyes on Vanguard*

Citing "marked changes in the political situation", MSV President Percy Wootton has asked the Long-Range Planning Committee to take "a new look as to what the purpose of the Vanguard Committee should be in the near future and how its programs can best be accomplished." The assignment was explained in a letter to Dr. Raymond S. Brown, the Long-Range Planning Committee's chairman. Dr. Wootton also pointed out that Council's recent request of

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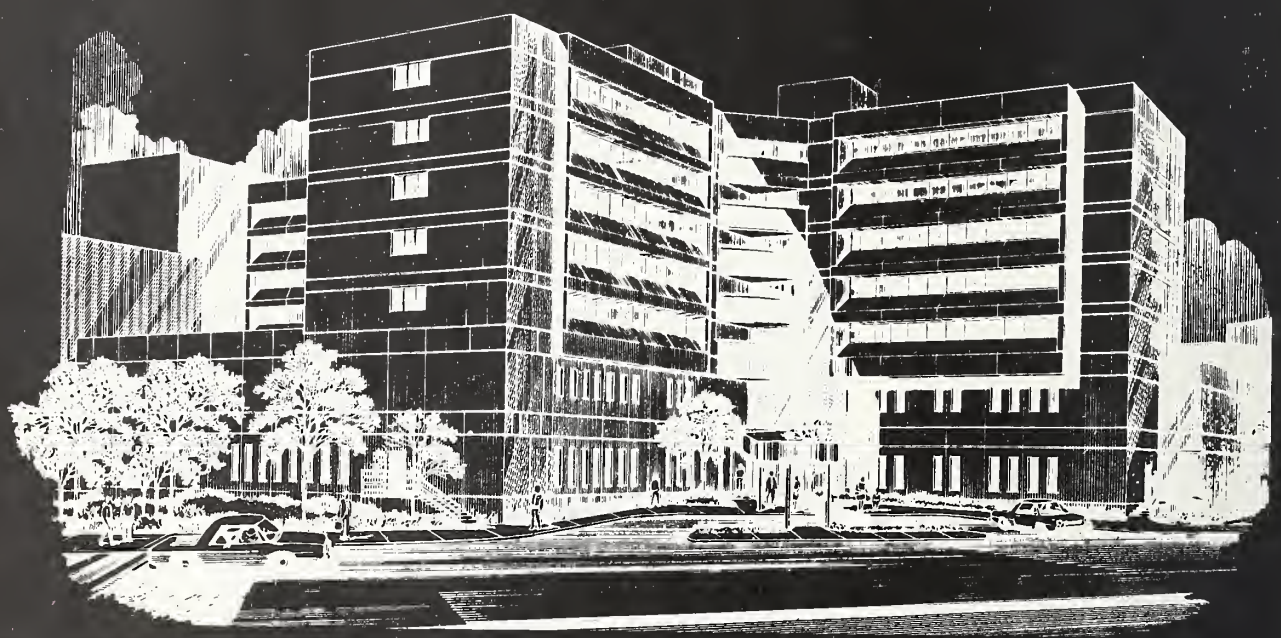

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President Reagan to put a freeze on expansion of HSA and PSRO activities could alter the role of the Vanguard Committee.

The Long-Range Planning Committee is composed of the five immediate Past Presidents. In addition to Dr. Brown, they are Dr. W. Leonard Weyl, Dr. William J. Hagood, Jr., Dr. Charles E. Davis, Jr., and Dr. George M. Nipe.

## *Tidewater Merger*

Almost 400 members of four component medical societies in the Tidewater area dined together in their 8th annual combined meeting early this year at the Omni Hotel in Norfolk. The event brought together physicians from Chesapeake, Norfolk, Portsmouth and Virginia Beach, with these leaders contributing to the program: Dr. Robert M. Kesler, president, Norfolk Academy of Medicine, and Dr. Albert L. Roper, II, Norfolk, the evening's program chairman; Dr. David L. Sarrett, president, Virginia Beach Medical Society; Dr. John A. Cocke, past president, Chesapeake Medical Society; Dr. A. A. Ruiz, president, Portsmouth Academy of Medicine; and Dr. Percy Wootton, president, The Medical Society of Virginia.

For a directory of presidents and secretaries of all the component medical societies in Virginia, turn to page 216.

## *Welcome News*

Through the Virginia Council on Health and Medical Care, 57 physicians found practice locations in Virginia during 1980, according to Edgar J. Fisher, Jr., the council's director. Of the total, 29 were family physicians and 28 were other specialists. The council is supported in part by The Medical Society of Virginia.

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# LETTERS TO THE EDITOR

Maury Claiborne Newton, Sr., MD

## Another Physician-Legislator: Dr. Richard M. Newton, Sr.

The article in VIRGINIA MEDICAL's January issue entitled "Serving a Locum Tenens in Virginia's Statehouse"[1] was interesting, since I knew many of the physicians involved.

However, the article was entirely incorrect in that there have been ten Virginia physicians elected to Virginia's General Assembly in the last 30 years rather than nine physicians as the article stated. My father, the late Dr. Maury Claiborne Newton, Sr., was elected to the House of Delegates as a Democrat from the counties of Giles, Bland and Pulaski in 1954 and served continuously until his death in 1961. He was a graduate of the Medical College of Virginia.

The late Jack W. Witten, MD, from Tazewell County, who was shown in a picture with the article, was my father's cousin. My father worked closely with the late Dr. Walter Caudill, MD, also pictured with the article.

My father's grandfather, James R. Witten, served in the House of Delegates in 1879, 1880 and 1882, and his great-grandfather, J. W. M. Witten, served in the House of Delegates from 1851 through 1853 and in the Virginia Senate from 1861 through 1863. Witten's Fort is a historic landmark in Tazewell County.

In November 1930 my father was given wide recog-

nition for saving the life of a pilot whose plane had crashed upside down in the New River at Narrows, so that his head was under water while he was strapped in the cockpit. My father, who was a powerful man, lifted the plane out of the water, enabling the pilot to breathe. To get to the plane, he had to cross over high-tension wires that had fallen to the ground when the plane crashed, and he had to go down sheer cliffs to get to the water. He was offered the Carnegie Medal for heroism but declined it.

Innumerable stories about my father became legend in Giles County and the surrounding counties during the 33 years he practiced there.

**Richard M. Newton, MD**

2129 Rosalind Avenue, SW
Roanoke VA 24014

1. Shires CL: Serving a locum tenens in Virginia's statehouse. Va Med 108:26-31, 1981

## Seeks More Information on 1911 Picture

The latter part of December 1980, I had a letter from my 88-year-old cousin, Glenn Updike, Sr., of Danville, Virginia, whose son is a practicing physician in Danville. He included a picture of a group of doctors at a meeting of The Medical Society of Virginia in 1911 that had been published in the October issue of Virginia Medical.[1] I am very eager to obtain whatever issue of the journal contained more information about this 1911 group.[2] The doctor my cousin was attempting to identify was his uncle and my grandfather, Elliott T. Brady! My grandfather died a few years before I was born, so, though I never knew him, I am nevertheless very interested. Could you send me a copy of that issue?

My husband is also interested to know if Dr. J. Shelton Horsley, a cousin of his, was identified.

**Kathleen Horsley**
(Mrs. Thomas M. Horsley)

2000 Rivershore Road
Elizabeth City NC 27909

1. Portrait of the 1911 annual meeting. Va Med 107:682-684, 1980
2. Letters to the Editor: Readers recognize father, uncle, grandfathers in 1911 annual meeting portrait. Va Med 108:2-4, 1981

**Editors' Note:** A copy of the January issue was sent to Mrs. Horsley, together with the information that, with the help of Dr. J. Shelton Horsley, III, of Richmond, an effort was made to identify his grandfather in the photograph, but results were inconclusive.

**17. Dr. Waller Morton Holladay**
**18. Dr. W. A. Brumfield**

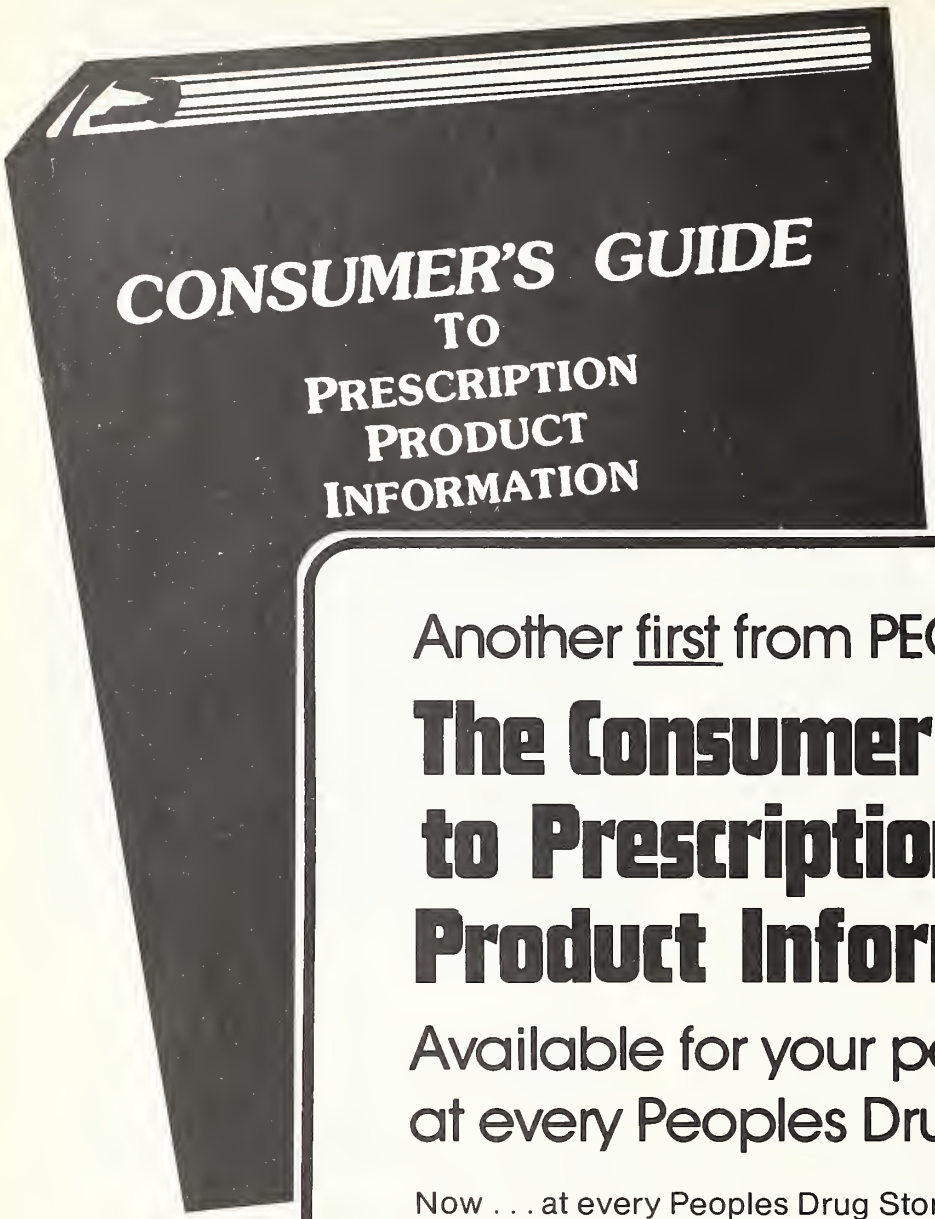
**19. Dr. Lewis Holladay**

## Recognize Three More Doctors in 1911 Photograph

From friends here in the Farmville area, we have obtained three more identifications of doctors in the 1911 photograph published in the October issue.[1]

Two were made by comparison of photographs by Miss Emilie Holladay, former math professor at Longwood College. She identified her father, Dr. Waller Morton Holladay, who was college physician at Hampden-Sydney College before his death in 1913 at the age of 49. He was a graduate of Hampden-Sydney and of Louisville Medical College. Miss Holladay also identified her uncle, Dr. Lewis Holladay of Orange, Virginia. He, too, was a Hampden-Sydney graduate but went on to the University of Virginia School of Medicine. The two Doctors Holladay were cousins.

Dr. Robert Brumfield, former biology professor at Longwood, recognized his father, Dr. W. A. Brumfield, who was a graduate of the University of Virginia School of Medicine. Dr. W. A. Brumfield was with the Health Department in Farmville and at Virginia Polytechnic Institute, and from 1928 to 1938

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was director of health for nine Virginia counties. He died in 1938 at the age of 63.

It has been interesting to follow the sleuthing in reference to the 1911 photograph, and we congratulate you on a job well done.

**R. A. Moore, Jr., MD**
Anne M. Moore

Route 3, Box HS 60
Farmville VA 23901

## A Medical Writer Praises Va Med

The packet containing the issues of VIRGINIA MEDICAL from May through January arrived yesterday, and I was overjoyed that you were able to assemble these back issues. As I have previously reported to you, the superb material in this journal is not only invaluable to me in my medical writing, but I use many of the items in the "Physician and the Media" seminars I give regularly for specialty groups and state and county medical societies. You are to be commended on the quality, variety and timeliness of the articles and news and feature items published in each issue, for they truly cover the entire spectrum of medicine.

Barbara Chapman

1212 Cosper Avenue
Rockford IL 61107

**Editors' Note:** An accomplished writer on topics medical, Barbara Chapman formerly was associate director of public relations for the American Medical Association. She left that post last summer to fulfill several major commissions, including two books.

## HMO Hospital Referrals: "Who Decides?"

An important ethical issue between health maintenance organizations (HMOs) and hospitals has arisen in Massachusetts. It is likely to exist nationwide. HMOs, through their employee-physicians, force physicians to whom HMO-insured patients have been referred to make clinical decisions heavily based on the willingness of the HMO (and the employee-physicians) to pay for hospital care.

As an example, patients admitted to a hospital for the care of complicated asthma, on referral from the HMO, may need care in the intensive care unit, in the judgment of the attending physicians at the admitting hospital. Care in the intensive care unit is much more expensive than routine care. Physicians from the HMO receive a year-end bonus of funds not spent by the HMO in delivering care to patients. HMO physicians are thus motivated to keep hospital use and daily costs as low as possible.

From time to time arguments arise between referring HMO physicians and the hospital consultant to whom the patient is sent over the need for intensive care and/or its duration. The issue is usually that the referring physician does not believe that enough benefit arises from intensive care as opposed to conventional care to warrant the more costly care, e.g., ICU. The referring physician has both a medical *and* a fiscal interest in restricting care.

Discussions about the proper level of care have always occurred and are always appropriate. In the past, the potential benefit to doctor and patient were in the same direction: more care, more fees. Now the shoe is on the other foot: less care may lead to more physician income. Is it ethical for an HMO-physician-employee to choose the least costly care, when there is disagreement among physicians, in order to earn a larger year-end bonus or in order to keep premiums low? Does the consultant have the final say in his hospital? Has the patient any rights? Who decides?

**Donald M. Switz, MD**

Harvard School of Public Health
Sidney Farber Cancer Institute
44 Binney Street
Boston MA 02115

## Corrects Criteria for Hysterectomy Study

The South Central PSRO was very pleased to see the report in the February 1981 issue of VIRGINIA MEDICAL on our area-wide hysterectomy study,[1] but there was a statement that needs correction. The criteria for justifiable surgery were 1) a pathology report indicating the presence of malignant disease, or premalignant conditions, or specified non-malignant disorders, or fibroids 4 cm or greater in size; 2) abnormal episodes of bleeding. Elective sterilization without the presence of one of the above conditions was *not* an acceptable reason for the performance of a hysterectomy.

**Wyatt S. Beazley, MD**

Chairman, Medical Care Evaluation Committee
South Central PSRO
1904 Byrd Avenue
Richmond VA 23230

1. Va Med News Bureau: PSRO study okays hysterectomies. Va Med 108:77-78, 1981

# OFFICERS OF COMPONENT MEDICAL SOCIETIES IN VIRGINIA

**Accomack County Medical Society** (1st)—President: Edward S. White, MD. Secretary: Belle DeCormis Fears, MD, Box 38, Accomac VA 23301.

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**Alleghany-Bath Counties Medical Society** (6th)—President: Mamerto Adrales, MD. Secretary: George N. Chucker, MD, Alleghany Regional Hospital, Clifton Forge VA 24422.

**Arlington County Medical Society** (10th)—President: Charles L. Rickerich, MD. Secretary: Robert G. Bullock, MD. Executive Director: Mrs. Patricia A. Murray, 4615 Lee Highway, Arlington VA 22207.

**Augusta County Medical Society** (6th)—President: John Stirewalt, MD. Secretary: John W. Forbes III, MD, 113 First Street, Stuarts Draft VA 24477.

**Bedford County Medical Society** (6th)—President: John A. Wente, Jr., MD. Secretary: Eileen T. Jennings, MD, 1700 Whitfield Drive, Bedford VA 24523.

**Buchanan-Dickenson Counties Medical Society** (9th)—President: Thomas D. McDonald, MD. Secretary: Bradley D. Berry, MD, Grundy Hospital, Grundy VA 24614.

**Chesapeake Medical Society** (4th)—President: J. W. Creef, MD. Secretary: A. Nicholas Terry, Jr., MD, 200 Medical Parkway #305, Chesapeake VA 23320.

**Culpeper County Medical Society** (7th)—President: Morton P. Chiles III, MD. Secretary: C. Gordon Heckel, MD, Culpeper Memorial Hospital, Culpeper VA 22701.

**Danville-Pittsylvania Academy of Medicine** (5th)—President: Alan A. Hoffman, MD. Secretary: Douglas W. Shiflett, MD, 101 Holbrook Street, Danville VA 24541.

**Fairfax County Medical Society** (10th)—President: Barbara A. Mella, MD. Secretary: Ian M. Shenk, MD. Executive Director: John W. Fitzgerald, 200 Little Falls Street, Falls Church VA 22046.

**Fauquier County Medical Society** (7th)—President: Norris A. Royston, MD. Secretary: Barbara Kramer Silbersiepe, MD, Catlett VA 22019.

**Floyd County Medical Society** (5th)—President: Lawrence V. Marshall, MD. Secretary: Garry H. Kuiken, MD, Route 4, Box 233A, Floyd VA 24091.

**Franklin County Medical Society** (5th)—President: Kenneth W. Lucas, Jr., MD. Secretary: L. Gail Lynch, MD, 109 Claiborne Avenue, Rocky Mount VA 24151.

**Fredericksburg Area Medical Society** (7th)—President: C. Kinsey Glover, MD. Secretary: Frederic A. Phillips, MD, 2301 Fall Hill Avenue, Fredericksburg VA 22401.

**Halifax County Medical Society** (5th)—President: Johnson Willis, MD. Secretary: William McConahey, MD, 405 Oak Lane, South Boston VA 24592.

**Hampton Medical Society** (1st)—President: Theodore R. Bunch, MD. Secretary: Robert E. Howard, MD. Executive Secretary: Mrs. Josephine Lascara, 201 Cherry Point Drive, Yorktown VA 23692.

**Hanover County Medical Society** (7th)—President: Donald B. Longest. Secretary: James J. Deligio, MD, Box 98, Beaverdam VA 23015.

**James River Medical Society** (5th)—President: Eugene C. Corbett, Jr., MD. Secretary: Russell N. Snead, MD, Point of Fork, Columbia VA 23038.

**Lee County Medical Society** (9th)—President: Nat C. Ewing, MD. Secretary: H. A. Kinser, MD, Pennington Gap 24277.

**Loudoun County Medical Society** (10th)—President: George T. Jamarik, MD. Secretary: Walter R. Zolkiwsky, MD, 207 East Holly Avenue, Suite 214, Sterling VA 22170.

**Lynchburg Academy of Medicine** (6th)—President: R. Terrell Wingfield, MD. Secretary: Peter R. Hulick, MD. Executive Secretary: Mrs. Betty P. Pearson, 1932 Thomson Drive, Lynchburg VA 24501.

**Mid-Tidewater Medical Society** (1st)—President: A. W. Lewis, MD. Secretary: Arthur J. Martin, MD, Box 485, Bowling Green VA 22427.

**Newport News Medical Society** (1st)—President: C. Patrick Laughlin, MD. Secretary: Hawes Campbell III, MD. Executive Secretary: Mrs. Barbara Novey, Box 1813, Newport News VA 23601.

**Norfolk Academy of Medicine** (2nd)—President: Robert M. Kesler, MD. Secretary: Herbert S. Gates, Jr., MD. Executive Director: Mrs. Ruth H. Dize, 227 West Freemason Street, Norfolk VA 23510.

**Northampton County Medical Society** (1st)—President: Ernest C. Gibb., Jr., MD. Secretary: Robert L. Erdman, MD, Nassawadox VA 23413.

**Northern Neck Medical Association** (1st)—President: A. D. Crosett, Jr., MD. Secretary: Norman R. Tingle, MD. Box 8, Lively VA 22507.

**Northern Virginia Medical Society** (7th)—President: Herbert Wood, MD. Secretary: Thomas E. Patteson III, MD, 107 Accomac Road, Front Royal VA 22630.

**Orange County Medical Society** (7th)—President: Patricia E. Crowder, MD. Secretary: Jeffrey A. Lovold, MD, Box 1256, Orange VA 22960.

**Patrick Henry Medical Society** (5th)—President: John B. LaFave, MD. Secretary: James E. Layton, MD, 1500 White Oak Court, Martinsville VA 24112.

**Portsmouth Academy of Medicine** (4th)—President: Abelardo A. Ruiz, MD. Secretary: H. Dale Sponaugle, MD. Executive Secretary: Mrs. Elsie D. Deaver, 3636 High Street, Portsmouth VA 23707.

**Prince William County Medical Society** (8th)—President: Guillermo GilMontero, MD. Secretary: Francisco Barrera, MD, Box 1447, Manassas VA 22110.

**Richmond Academy of Medicine** (3rd)—President: Charles M. Caravati, Jr., MD. Secretary: Edward D. Martirosian, MD. Executive Director: Mrs. M. Sheffield Smith, 1200 East Clay Street, Richmond VA 23219.

**Roanoke Academy of Medicine** (6th)—President: John Cole, Jr., MD. Secretary: John P. Kaufman, MD. Executive Secretary: Mrs. Rita Roberts, Box 8398, Roanoke VA 24014.

**Rockbridge County Medical Society** (6th)—President: Robert P. Irons, Jr., MD. Secretary: James R. Busch, MD, 1 East Preston Street, Lexington VA 24450.

**Rockingham County Medical Society** (7th)—President: Gordon O. White, MD. Secretary: Paul R. Yoder, Jr., MD. Executive Secretary: Mrs. Juanita Taylor, 738 South Mason Street, Harrisonburg VA 22801.

**Scott County Medical Society** (9th)—President: James W. Wolfe, MD. Secretary: Kenneth Robertson, MD, Box 175, Gate City VA 24251.

**Southside Virginia Medical Society** (4th)—President: Frederick C. Sturmer, Jr., MD. Secretary: Lewis W. Bridgeforth, MD, Box A-F, Victoria VA 23974.

**Southwestern Virginia Medical Society** (9th)—President: Stephen B. Irvin, MD. Secretary: John Boniface, Jr., MD. Executive Secretary: Gregory R. Steele, Box 3608, Radford VA 24141.

**Stuart Medical Society** (5th)—President: James A. Arline, MD. Secretary: Robert R. Bowman, Jr., MD, Stuart Clinic, Box 409, Stuart VA 24171.

**Tazewell County Medical Society** (9th)—President: Robert A. Abernathy, MD. Secretary: Kenneth E. Anselmi, MD, 105 Tazewell Avenue, Richlands VA 24641.

**Tri-County Medical Society** (4th)—President: Robert R. Harrell, MD. Secretary: J. Floyd Clingenpeel, MD, Box 655, Franklin VA 23851.

**Virginia Beach Medical Society** (2nd)—President: David L. Sarrett, MD. Secretary: Bertram L. Warren, Jr., MD. Executive Secretary: Mrs. Joan B. Ward, General Hospital of Virginia Beach, 1060 First Colonial Road, Virginia Beach VA 23454.

**Williamsburg-James City County Medical Society** (1st)—President: James B. Hess, MD. Secretary: Jose A. Erfe, MD, 101 Richard's Patent, Williamsburg VA 23185.

**Wise County Medical Society** (9th)—President: Michael B. Ford, MD. Secretary: T. K. Parthasarathy, MD, Big Stone Gap Clinic, Big Stone Gap VA 24219.

**MCV Student Medical Association** (3rd)—President: Venita Weaver. Secretary: Bob Morell, Box 449, MCV Station, Richmond VA 23298.

**University of Virginia Student Medical Society** (7th)—President: Vaughan D. Hall. Secretary: James L. Mostrom, Box 233, McKim Hall, Charlottesville VA 22903.

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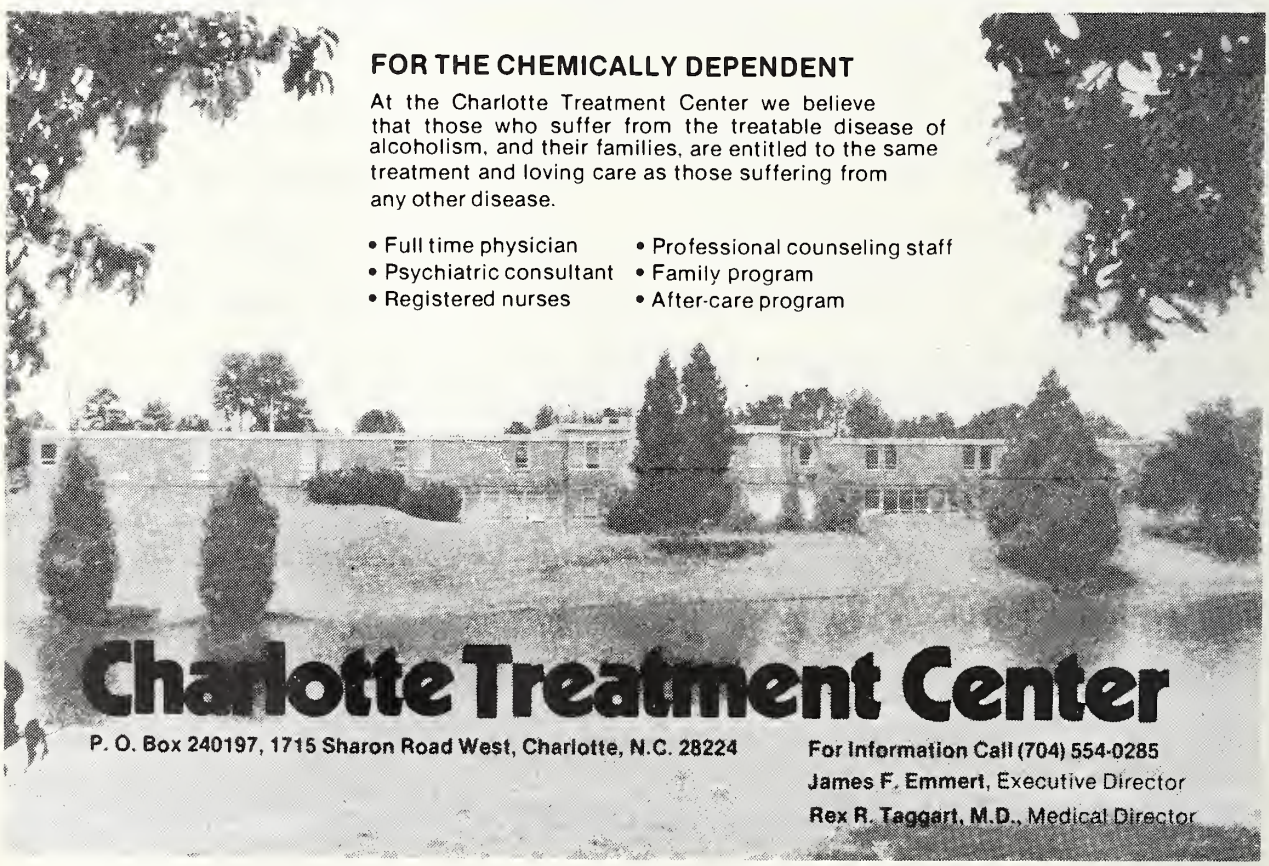
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# OFFICERS OF THE LINE

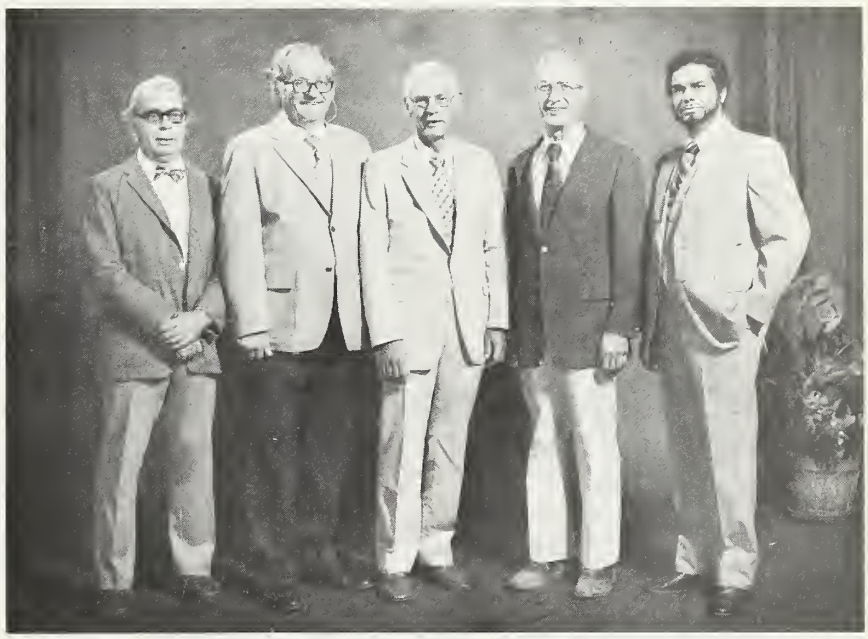
*With a series of photographs of their presidents, Virginia Medical salutes the component medical societies, front line of organized medicine in Virginia. This is the fourth in the series.*

WHEN the Wise County Medical Society celebrated its 75th anniversary last month, the past presidents pictured here were front row center, surrounded by members and friends of the Society in a gala evening at the Armory in Big Stone Gap, Wise County, Virginia.

The Armory is a big hall, which was appropriate because it was a big crowd. Invitations had gone out to all the doctors for miles around, whether members or not, to city and county officials, to hospital administrators and pharmacists, to lawyers and clergymen, this long list of notables doubled by the accompanying spouses.

Stationed hospitably at the door to greet all these guests were women of the Wise County Society's Auxiliary, who earlier had decorated the dining tables. Everyone who came received the 52-page anniversary brochure printed especially for the occasion; its glossy pages offered profiles of the 60 physicians who belong to the Wise County Society and described all the medical facilities in the area—a handy little medical directory. Were they here to read it, the five physicians who founded the Wise County Medical Society early in this century would be flabbergasted to see how medicine has grown in far western Virginia, next door to Kentucky and 425 miles from Norfolk on Virginia's Eastern Shore.

After everyone had trooped past the buffet and was full of good food, the program was launched, with these officers doing the saluting and introducing: Dr. Michael B. Ford, current president; Dr. Joseph M. Straughan, immediate past president; and Dr. T. K. Parthasarathy, secretary and planner of the program.



**Five past presidents of the Wise County Medical Society: from left, Dr. Lewis K. Ingram, Dr. Pierce D. Nelson, Dr. George F. Sutherland, Dr. Joseph T. Phillips, Jr., and Dr. Khalid J. Awan.**

Three speakers were starred: State Senator John C. Buchanan, MD, who has practiced medicine in Wise County for 25 years and is the only physician in Virginia's General Assembly; and, bringing greetings from The Medical Society of Virginia, Dr. Percy Wootton, President, and Dr. H. C. Alexander, III, President Elect. It was the first time within memory that an MSV President had visited this component society, and Dr. Wootton made up for lost years by flying from Richmond in the morning and spending the day and the night.

But the most emphatic applause hailed the ten Wise County Society members who came forward to receive citations for 25 years of service to their communities. Four of them are in the picture shown here: Drs. Ingram, Nelson, Phillips and Sutherland. One was Dr. Straughan. The others: Dr. William B. Barton, Dr. Delmas B. Jones, Dr. Herbert H. Howze, Dr. Jessee J. Porter, Dr. Charles I. Fuller and Dr. Ronald N. Shelley.

It was a Big Evening, and it sure did put the Wise County Medical Society on the map. A. G.

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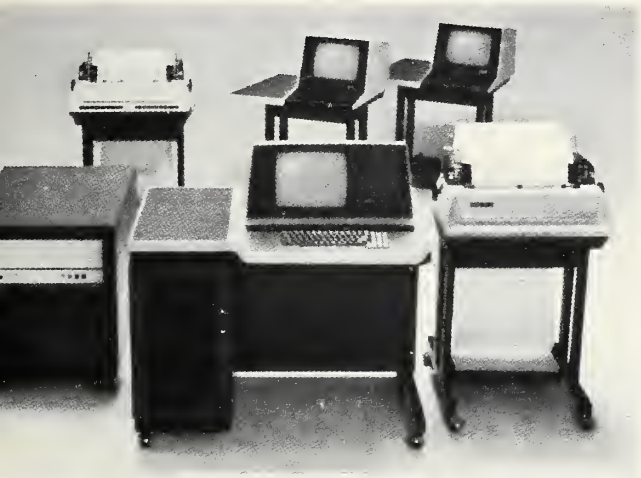

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# MEETINGS ABOUT MEDICINE

### A CURE FOR CONFLICTS

To prevent the conflicts in meetings dates that occur now and then, the Medical Society of Virginia Continuing Education Office is a referral point for those who are scheduling meetings.

Toward this worthy goal, would you please notify the CME office by phone or letter as soon as your meeting date is settled. Do not wait for formulation of program plans and such; this register will refer only to the *dates* of meetings.

The address of the CME office is 4205 Dover Road, Richmond VA 23221. The phone number: (804) 353-2721. Dr. Kinloch Nelson is CME director for The Medical Society of Virginia, but the register is kept by Mrs. Evelyn Stockmar; ask for her when you call.

**April 23-25**
**Congress in Medical Education** (American Medical Association, Federal and State Medical Boards), *Chicago.* J. J. Fauser, AMA, 535 N. Dearborn, Chicago IL 60610.

**April 24-25**
**Gynecologic Endocrinology, Infertility, Hirsutism and Menstrual Abnormalities** (East Tennessee State University), *Johnson City, Tennessee.* 7 credits. Fee: $60. Shirley Bogart, CME Program Coordinator, (615) 928-6426, ext. 204.

**April 24-26**
**"Pediatric Springfest": Annual Postgraduate Conference and Sutton Day Lectures** (Department of Pediatrics, Medical College of Virginia), Williamsburg Hilton Conference Center, *Williamsburg.* Dawn G. Mueller, MD, Box 276, MCV Station, Richmond VA 23298.

**April 24-26**
**Association of University Anesthetists** (University of Virginia), *Charlottesville.* Cat. 1 credit. See April 24-25 entry.

**April 25-27**
**Annual Meeting of the American Federation for Clinical Research,** *San Francisco.* Cat. 1 credit. Jan Sharkey, Charles B. Slack, Inc., Thorofare NJ 08086.

**April 26-29**
**West Virginia Academy of Ophthalmology and Otolaryngology,** *White Sulphur Springs, West Virginia.* J. E. Blaydes, MD, Frederick and Woodland, Bluefield WV 24701.

**April 30-May 1**
**Selected Topics in Digestive Disease: 34th Annual Stoneburner Lecture Series** (Medical College of Virginia), *Richmond.* 12 Cat. 1 credits. Kathy E. Johnson, MCV Station, Richmond VA 23298, (804) 786-0494.

**April 30-May 2**
**American Society of Clinical Oncology,** *Washington DC.* A. Van Horn, III, 435 N. Michigan, Suite 1717, Chicago IL

**April 30-May 3**
**Leadership Conference, American Society of Internal Medicine,** *Denver.* Cat. 1 credit. American Society of Internal Medicine, 2550 M Street, NW, Suite 620, Washington DC 20037.

**May 1-3**
**Annual Meeting of the Virginia Orthopaedic Society,** *Williamsburg.* Guest speaker: Sir John Charnley, of hip joint replacement fame. Joseph O. Romness, MD, 3801 N. Fairfax Dr., Arlington VA 22203, (703) 525-3524.

**May 6-8**
**New Diagnostic and Therapeutic Approaches in Coronary and Valvular Heart Disease** (University of Virginia), *Charlottesville.* Cat. 1 credit. Continuing Medical Education Program, School of Medicine, Charlottesville VA 22908, (804) 924-5318.

**May 6-9**
**62nd Annual Meeting of the Virginia Society of Ophthalmology and Otolaryngology,** *Virginia Beach.* 10 Cat. 1 credits applied for. Donna Strawderman, 4205 Dover Rd., Richmond VA 23221, (804) 353-2721.

**May 8-9**
**Current Controversies and Techniques in Congenital Heart Disease** (University of Maryland), *Baltimore.* Betty B. Saar, University of Maryland School of Medicine, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**May 10-13**
**American Association of Plastic Surgeons,** *Williamsburg.* J. E. Bennett, MD, Emerson 235, 1100 W. Michigan, Indianapolis IN 46223.

**May 11-13**
**American Association for Thoracic Surgery,** *Washington DC.* W. T. Maloney, 6 Beacon St., Suite 620, Boston MA 02108.

**May 11-15**
**Basic Practicum Ultrasound** (Johns Hopkins University), *Baltimore.* Cat. 1. credit. Fee: $400. Janet Hardy, 720 Rutland Ave., Baltimore MD 21205

**May 13**
**Substance Abuse in East Tennessee** (East Tennessee State University), *Johnson City, Tennessee.* 6 credits. Fee: $40 Shirley Bogart, (615) 928-6426, ext. 204.

**May 13-15**
**Clinical Auscultation of the Heart** (Georgetown University), *Washington DC.* Registrar, American College of Cardiology, 9111 Old Georgetown Rd., Bethesda MD 20014.

**May 17-22**
**12th Family Medicine Review, Session II** (University of Kentucky), *Lexington.* Cat. 1 credit. Frank R. Lemon, MD, College of Medicine, Lexington KY 40536, (606) 233-5161.

**May 22-24**
**Southeastern Dermatological Association,** *Charleston, South Carolina.* L. S. Osment, MD, 2661 10th Ave. S., Birmingham AL 35205.

**May 27-29**
**Current Trends in Respiratory Care 1981** (Virginia Society of the American Association for Respiratory Therapy), *Virginia Beach.* Paul McCabe, (804) 359-6961.

**May 27-29**
**Spring Continuing Medical Education Conference** (Virginia State Department of Health), *Charlottesville.* 12 hrs. Cat. 1 credit. Bureau of Staff Development, James Madison Bldg., 109 Governor St., Richmond VA 23219, (804) 786-3165.

**June 3-5**
**Update in Ob-Gyn** (University of Kentucky), *Lexington.* Cat. 1 credit. Frank R. Lemon, MD, University of Kentucky, College of Medicine, Lexington KY 40536, (606) 233-5161.

**June 4-5**
**Realtime Ultrasound** (John Hopkins University), *Baltimore.* Cat. 1 credit. Fee: $200. Janet B. Hardy, Office of Continuing Education, Turner Auditorium Bldg., 720 Rutland Ave., Baltimore MD 21205.

**June 5-6**
**Geriatrics II—Sexuality and the Aging** (East Tennessee State University, Mountain Home Veteran's Administration), *Johnson City, Tennessee.* 9 hrs. credit. Fee: $70. Shirley Bogart, Program Coordinator, Continuing Medical Education, (615) 928-6426, ext. 204.

**June 10-13**
**5th Annual Fitz-Hugh Symposium—Pediatric Otolaryngology** (University of Virginia), *Charlottesville.* Continuing Medical Education, University of Virginia, Box 368, Charlottesville VA 22908, (804) 924-5318.

**June 17-19**
**The Patient with Arrhythmia—A Clinical Approach** (Georgetown University, Washington Veteran's Administration Hospital), *Washington DC.* Registrar, American College of Cardiology, 911 Old Georgetown Rd., Bethesda MD 20014.

**June 17-19**
**Emergency Medical Services: Responsibility and Accountability in the '80s** (American Society of Law and Medicine), *Boston, Massachusetts.* Fee: $250-285. American Society of Law and Medicine, 520 Commonwealth Ave., Suite 211, Boston MA 02215, (617) 262-4990.

**June 18-21**
**Annual Session of the Seaboard Medical Association of Virginia and North Carolina,** Holiday Inn, *Kill Devil Hills, North Carolina.* Mrs. Annette S. Boutwell, PO Box 10387, Raleigh NC 27605, (919) 821-2226.

**June 18-19**
**Geriatric Psychiatry** (University of Maryland), *Baltimore.*


**Second Annual Oculo-Plastic Symposium**

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## 1981 Annual Meeting, The Medical Society of Virginia: October 21-25, Norfolk

Betty B. Saar, Program of Continuing Education, University of Maryland, Room 300 MSTF, 10 South Pine St., Baltimore MD 21201, (301) 528-3956.

**June 19-21**

**American Association for the Study of Headaches,** *Washington DC.* S. Diamond, MD, 5252 N. Western Ave., Chicago IL 60625.

**June 21-26**

**Eastern Shore Medical Symposium** (University of Delaware, Jefferson Medical College, Medical Society of Delaware) *Rehoboth Beach, Delaware.* Sylvia Brocka, Wilcastle Center, University of Delaware, 2800 Pennsylvania Ave., Wilmington DE 19806, (302) 738-8155.

**June 25-27**

**Dermatology Days** (University of Maryland), *Ocean City, Maryland.* Betty B. Saar, Program of Continuing Education, University of Maryland, Room 300 MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**June 28-July 3**

**7th Annual Family Review Course** (University of Maryland), *Ocean City, Maryland.* Betty B. Saar, Program of Continuing Education, University of Maryland, Room 300 MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

## SERIAL LEARNING PROGRAMS

Four one-week courses in medical radiation safety will be offered in June by the University of Virginia's Radiological Physics Division. The schedule:

June 1-6 Basic Radiation Safety
June 8-12 Radiation Safety in Diagnostic Radiology
June 15-20 Radiation Safety in Nuclear Medicine
June 22-27 Radiation Safety in Radiotherapy

These courses are intended for x-ray technologists, medical and health physicists, radiology residents and individuals desirous of starting a career in health physics with no previous experience in health physics. Participants may take any one of the courses independently or any combination of the four courses. Tuition fee is $105 plus $50 material fee for each course. For further information contact Suresh K. Agarwal, PhD, Box 375, University of Virginia Medical Center, Charlottesville VA 22908.




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Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci
Bronchitis and pneumonia caused by S. *pneumoniae* (formerly *D. pneumoniae*)
Otitis media caused by S. *pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*
Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
SKIN AND SKIN STRUCTURES (integumentory) infections caused by Group A beta-hemolytic streptococci and staphylococci, nonpenicillinase producers.
URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)
NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.
**Contraindications** Contraindicated in individuals with history of an allergic reaction to penicillins.
**Warnings Cyclacillin should only be prescribed for the indications listed herein.**
**Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.**
**Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.**
**Precautions** Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
**Adverse Reactions** Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
*Patients with Renal Failure* Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
**Dosage** (Give in equally spaced doses)

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|---|---|---|
| *Respiratory Tract* | | |
| Tonsillitis & Phoryngitis | 250 mg q.i.d. | body weight < 20 kg (44 lbs) 125 mg q.i.d.<br>body weight > 20 kg (44 lbs) 250 mg q.i.d. |
| Bronchitis and Pneumonia | | |
| Mild or Moderate Infections | 250 mg q.i.d. | 50 mg/kg/day q.i.d. |
| Chronic Infections | 500 mg q.i.d. | 100 mg/kg/day q.i.d. |
| *Otitis Media* | 250 mg to 500 mg q.i.d.† | 50 to 100 mg/kg/day† |
| *Skin & Skin Structures* | 250 mg to 500 mg q.i.d.† | 50 to 100 mg/kg/day† |
| *Urinary Tract* | 500 mg q.i.d. | 100 mg/kg/day |

*Dosage should not result in a dose higher than that for adults.
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# Facts

justification as evidenced by their high levels of anxiety. It was further noted that antianxiety drugs are not usually prescribed for trivial, transient emotional problems.

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## diazepam/Roche

**Before prescribing, please consult complete product information, a summary of which follows:**
**Indications:** Management of anxiety disorders, or short-term relief of symptoms of anxiety, symptomatic relief of acute agitation, tremor, delirium tremens and hallucinosis due to acute alcohol withdrawal; adjunctively in skeletal muscle spasm due to reflex spasm to local pathology; spasticity caused by upper motor neuron disorders; athetosis; stiff-man syndrome; convulsive disorders (not for sole therapy).
The effectiveness of Valium (diazepam/Roche) in long-term use, that is, more than 4 months, has not been assessed by systematic clinical studies. The physician should periodically reassess the usefulness of the drug for the individual patient.
**Contraindicated:** Known hypersensitivity to the drug. Children under 6 months of age. Acute narrow angle glaucoma; may be used in patients with open angle glaucoma who are receiving appropriate therapy.
**Warnings:** Not of value in psychotic patients. Caution against hazardous occupations requiring complete mental alertness. When used adjunctively in convulsive disorders, possibility of increase in frequency and/or severity of grand mal seizures may require increased dosage of standard anticonvulsant medication; abrupt withdrawal may be associated with temporary increase in frequency and/or severity of seizures. Advise against simultaneous ingestion of alcohol and other CNS depressants. Withdrawal symptoms similar to those with barbiturates and alcohol have been observed with abrupt discontinuation, usually limited to extended use and excessive doses. Infrequently, milder withdrawal symptoms have been reported following abrupt discontinuation of benzodiazepines after continuous use, generally at higher therapeutic levels, for at least several months. After extended therapy, gradually taper dosage. Keep addiction-prone individuals under careful surveillance because of their predisposition to habituation and dependence.

***Usage in Pregnancy:* Use of minor tranquilizers during first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**

**Precautions:** If combined with other psychotropics or anticonvulsants, consider carefully pharmacology of agents employed; drugs such as phenothiazines, narcotics, barbiturates, MAO inhibitors and other antidepressants may potentiate its action. Usual precautions indicated in patients severely depressed, or with latent depression, or with suicidal tendencies. Observe usual precautions in impaired renal or hepatic function. Limit dosage to smallest effective amount in elderly and debilitated to preclude ataxia or oversedation.
**Side Effects:** Drowsiness, confusion, diplopia, hypotension, changes in libido, nausea, fatigue, depression, dysarthria, jaundice, skin rash, ataxia, constipation, headache, incontinence, changes in salivation, slurred speech, tremor, vertigo, urinary retention, blurred vision. Paradoxical reactions such as acute hyperexcited states, anxiety, hallucinations, increased muscle spasticity, insomnia, rage, sleep disturbances, stimulation have been reported, should these occur, discontinue drug. Isolated reports of neutropenia, jaundice, periodic blood counts and liver function tests advisable during long-term therapy.
**Dosage:** Individualize for maximum beneficial effect. *Adults.* Anxiety disorders, symptoms of anxiety, 2 to 10 mg b.i.d. to q.i.d.; alcoholism, 10 mg t.i.d. or q.i.d. in first 24 hours, then 5 mg t.i.d. or q.i.d. as needed; adjunctively in skeletal muscle spasm, 2 to 10 mg t.i.d. or q.i.d.; adjunctively in convulsive disorders, 2 to 10 mg b.i.d. to q.i.d. *Geriatric or debilitated patients:* 2 to 2½ mg, 1 or 2 times daily initially, increasing as needed and tolerated. (See Precautions.) *Children:* 1 to 2½ mg t.i.d. or q.i.d. initially, increasing as needed and tolerated (not for use under 6 months).
**Supplied:** Valium® (diazepam/Roche) Tablets, 2 mg, 5 mg and 10 mg—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50, available in trays of 10.

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*Continued on page 236.*

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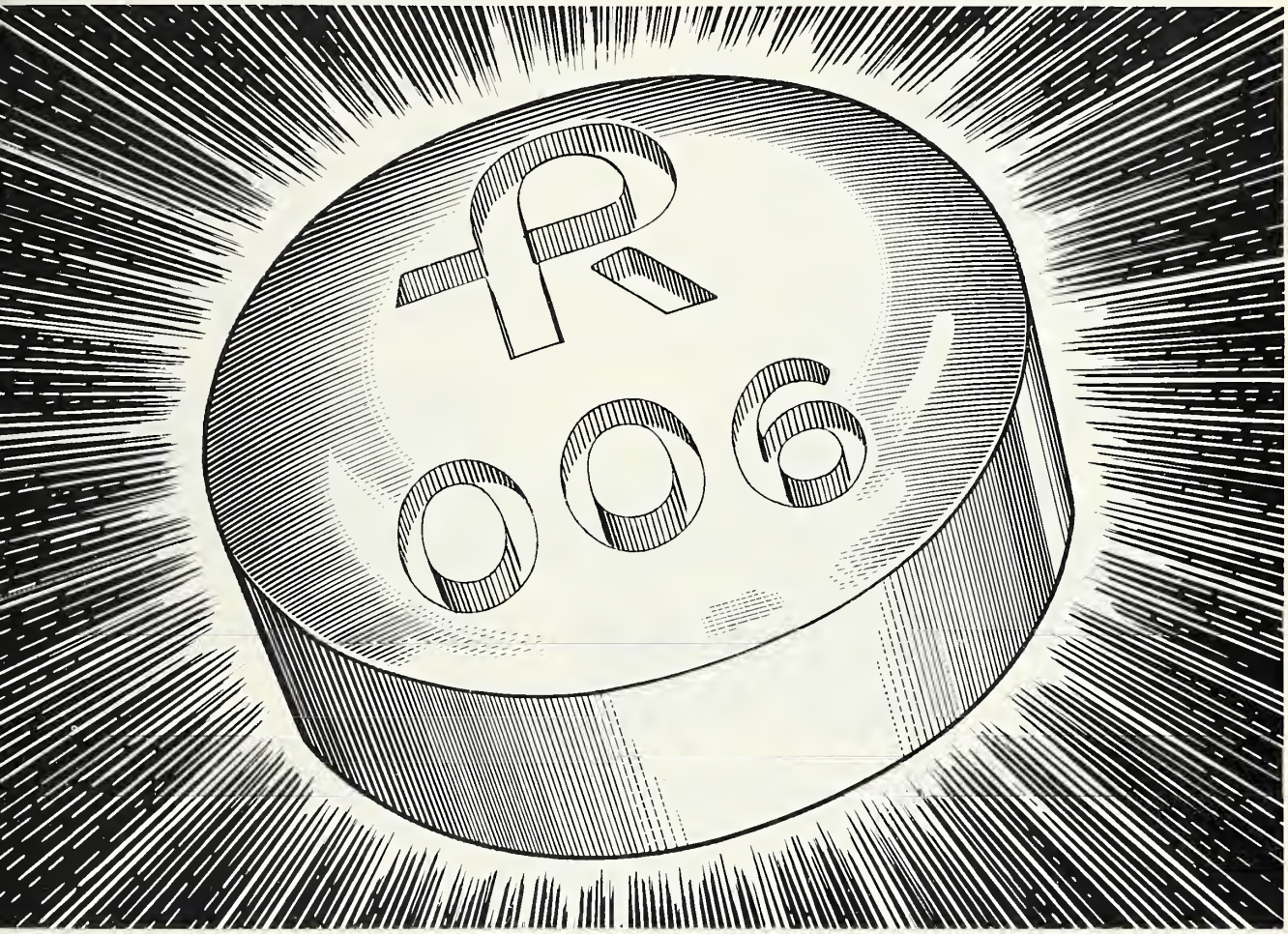


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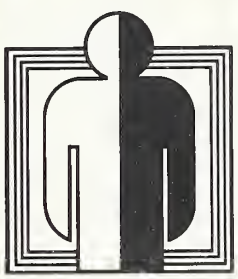

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VIRGINIA MEDICAL
APRIL 1981

# Colorectal Cancer: To Screen or Not to Screen?

Harold J. Wanebo, MD, *Charlottesville, Virginia*

Could a colorectal screening program in Virginia appreciably reduce morbidity and mortality rates? Yes, says the author, if every Virginian over 40 had a rectal exam and fecal occult blood test at least every other year, one could expect markedly increased detection of earlier, curable cancers, plus detection and elimination of polyps. The prediction is backed by studies in other areas.

A CURRENT critical issue in medical care delivery is the value of screening for malignancy. This issue and the related problems are well highlighted in colorectal cancer. We will examine specific questions regarding the basic problem and the population at risk, the potential benefits of surgery, the current yield of established and sporadic screening programs, methods of screening, cost-benefit ratio, and the potential for establishing screening programs in the state of Virginia.

## The Problem in Perspective

Nationally, about 112,000 new cases of colorectal cancer are diagnosed annually, and over a five-year period, 50% of these patients will die of the disease. Only 42% of detected colorectal cancer is in a localized state, without lymph node involvement. The five-year survival rate for patients with localized disease is 71%, and for those with lymph node involvement, it is about 40%.[1] These figures are in contrast to those for patients in whom colorectal cancer is detected in an asymptomatic stage. Almost all of these patients have localized disease and are potentially curable at surgery; less than 4% have distant metastases, and their five-year survival rate approaches 90%.[2]

The population with a standard risk for developing colorectal cancer is essentially all persons, male and female, over 40 years of age, who have no previous personal or family history of neoplastic colon disease (polyps or cancer) or preneoplastic disease. Population at *high* risk would include persons with a history of previous cancer or polyps, female genital cancer or longstanding pan-ulcerative colitis, or who have one of the heritable colon cancer syndromes. Such syndromes would include familial polyposis, Gardner's syndrome or the nonpolyposis inheritable syndromes: site-specific colon cancer, gastrocolonic cancer, adenocarcinomatoses (family cancer syn-

From the Division of Oncology, Department of Surgery, University of Virginia Medical Center, where Dr. Wanebo is American Cancer Society Professor of Clinical Oncology. Address correspondence to him at the Medical Center, Box 181, Charlottesville VA 22908.

Submitted 12-4-80.

drome) and Muir's syndrome. Our discussion will primarily deal with persons who are at a standard risk, as the high-risk patients are usually under the close attention of physicians with a special interest in the problem.

## Potential Benefit of Screening

The value of the digital rectal examination in screening for colorectal cancer has not been formally tested, although it is a time-honored and important feature of the routine physical examination. It was included in the controlled multiphasic screening study conducted by the Kaiser Foundation Health Plan.[19] About 5,000 persons in the study group were offered a health package plan including a questionnaire, a digital rectal examination, blood count and sigmoidoscopy (but no test for occult blood). About two-thirds faithfully returned for examination each year. One-third of those screened underwent sigmoidoscopy, but most had digital rectal examinations. A comparable control group, selected by chart number, was also entitled to periodic examinations, but only 20% had yearly checkups. There was a lower mortality rate from colorectal cancer in the screened group: five deaths (1.0 per 1000) versus 18 deaths (3.3 per 1000) in the non-screened population ($p < 0.05$).

The process of screening is in evolution. It has changed from an effort relying primarily on sigmoidoscopy (with a relatively low yield overall) to one utilizing a reasonably reliable method of identifying patients who have occult blood in the stool and examining them with more sophisticated and complementary techniques of double contrast barium enema and colonoscopy. Of greatest import here has been the introduction of a more effective and reliable method of detecting occult blood in the stool by use of a guiac-impregnated slide (Hemoccult®) in patients on a specialized diet. As initially described by Greeger,[3] this test is useful as a screen for colorectal disease when used in the prescribed way: two slides are prepared by the patient at home from different parts of a stool each day for three days, for a total of six slides, while the patient is on a meat-free, high-roughage diet. In asymptomatic people, this test usually detects colon cancers at an early stage with low false-negativity and an estimated 1% false-positivity. In Greeger's initial series there were five positive tests per 100 patients tested (including one with colon cancer, two with diverticulosis, two with polyps, and one patient in whom no disease could be found).[3] In his more recent series,[4] the incidence of positive tests has been around 1%, which is the figure reported by others in uncontrolled series.[5]

Two controlled studies are underway, one at the University of Minnesota[6] and one at the Memorial-Sloan Kettering Cancer Center/Preventive Medicine Institute-Strang Clinic.[7] Current studies show a positive rate of 1%-3.5% (acceptably low), a high predictive rate for neoplastic lesions of 44%-50%, a low false-positive rate of 0.5%-2.1%, a high percentage (75%) of Dukes A and B cancer (versus an expected rate of 42%), and a high number of adenomatous polyps. In Gilbertson's recent followup report,[8] 48,000 persons were enrolled in a randomized controlled screening trial, and 873 persons had positive tests. Of these, 458 had polyps, and 77 had gastrointestinal cancers (72 primary and one secondary colorectal cancer, three gastric cancers, and one pancreatic cancer). Of the primary colon cancer patients, 65% were Dukes A, and 13% were Dukes B.[8]

Although the impregnated guiac slide test detects hemoglobin through its peroxidase activity, is not specific for human hemoglobin and can be interfered with by peroxidase containing vegetables, the false-positive rate is acceptably low, suggesting a low order of interference. An immunochemical method specific for human hemoglobin is under study. This technique can detect a minimum hemoglobin of 0.3 mg/gm of stool and has appeared equivalent in sensitivity to standard Hemoccult tests in one trial. It is a more cumbersome method, however, and will require confirmation and refinement.[9]

The value of sigmoidoscopy in detecting asymptomatic rectal lesions has been examined in several centers. The approximate yield of invasive carcinoma has been 1.5/1000 (or one per 667 patients examined). Approximately 55% of colorectal cancer occurs within range of the 25-cm sigmoidoscope.[10] The experience at the Strang Preventive Medicine Clinic disclosed that in over 26,000 asymptomatic patients (47,091 proctosigmoidoscopic examinations), 58 cancers were detected. In 50 patients followed over 15 years, the survival rate approximated 90%, as compared to the expected 40%-50% survival rate for cancers detected clinically.[13] Although the yield of detectable cancers by this technique is low, one must keep in mind the value of detecting and removing polyps proctosigmoidoscopically and preventing development of colorectal cancer.

## Mass Screening

The problems and benefits of mass screening are epitomized in the Hastings study, which was undertaken in Mercer County, New Jersey, a county of 304,000 persons. A cancer committee, in cooperation with the American Cancer Society, organized 15 cen-

ters, and an intensive public education campaign was initiated. On Cancer Detection Day, 3,450 men and women registered and were given kits containing dietary instruction and guiac slides for three sequential days; 2,933 patients were examined and tested, and 517 simply took the kit. A total of 2,625 (76%) returned the slides. Of these, 159 (6%) had a positive occult blood test and were referred to their physicians. Followup on 121 patients showed that only 51 received a complete examination including physical exam, sigmoidoscopy and barium enema. Of these, five had colorectal cancer and three were surgically cured. Of the 2,272 persons over 40 years old who registered, 2,045 were examined, 1,835 returned the test slides (81% overall compliance), and 114 (6%) had positive reactions for blood. Followup reports in 89 cases showed that only 41 received a complete evaluation (physical exam, proctosigmoidoscopy, and barium enema). Five asymptomatic patients had cancer, and three had curative resections. This, of course, raises serious questions about the remaining 48 patients who were not examined. Although the digital rectal exam itself was nonproductive, physical contact apparently was an important part of the program, for 81% of those examined returned the test slides, as compared to 50% of those who were not examined and only received the slides.

Although the mass screening effort by Hastings[11] was not as productive overall as the controlled study trials of Winawer[18,19] and Gilbertson,[8] it was quite consistent with other similar trials and was superior to some. One reason for the improvement may be the careful organization and public education program undertaken prior to the screening day and the physician contact at the time of distribution of the slides.

Another mass screening program was conducted in Chicago following an extensive promotional and educational program via television. Some 54,101 Hemoccult kits were requested and distributed by seven cancer detection facilities. Only 14,074 recipients (26%) completed and returned the test, and 617 (4.38%) had positive tests. Of these, 215 failed to respond to notification, 123 had incomplete diagnostic tests, and in 33 the private physician requested no further testing. There were no abnormalities in 152. Of 187 with abnormalities, 29 cancers (asymptomatic) were found (19 had Dukes A or B lesions). Thus the returns from these mass studies are low, although the value to the individual patients in whom cancer is detected is quite high (in general, they have more favorable lesions than expected).

The issue of what type of approach works best in mass screening efforts has been analyzed by Elwood et al[12] in a study of 11,115 members of the Retired Teachers Association and the American Association of Retired Persons. Elwood compared non-selective distribution versus such selective methods as the mail-out, home-visit, group-meeting, as well as the come-in method, in which participants were invited by mail to come to a specific location—i.e., hospital or clinic—where the purpose of the test was discussed and slides were distributed. Elwood also cost-accounted the various methods. The most efficient personal contact method was the home-visit method, followed by the group-meeting method. The most efficient method involving mail was the selective mail-out method.

## Other Diagnostic Techniques

The prevalence of polyps on proctosigmoidoscopy in patients over 40 years of age ranges from 4.7% to 9.7%.[13] Gilbertson has provided the most illustrative work confirming the value of detecting and removing polyps in his studies at the University of Minnesota.[14] They did over 85,000 sigmoidoscopies repeatedly in 18,000 patients over a 25-year period and removed or fulgurated all discovered polyps. Over this period, only 17 cancers were found in the treated population, as compared to the expected 75-80 cancers in the overall population. Polyp removal was considered an important factor in this low incidence of rectosigmoid cancer. The value of this preventive maintenance in the lives of patients in this series is probably incalculable, even if one considers only the monetary cost of treating those anticipated 75-80 cancers. Many health maintenance programs use preventive proctosigmoidoscopy as part of their services on this basis.[15]

When properly performed, the barium enema is another excellent method in the early investigation of symptomatic patients or selective patients who are at high risk, although it is too costly and time-consuming to be considered a routine screening test. Regular barium enema without air contrast can miss up to 40% of polyps and 20% of carcinomas. Malmo-type air contrast enemas emphasizing intensive colon preparation detect the majority of large polyps but miss many of the smaller lesions.[16]

Colonoscopy has literally revolutionized the field of detection of polyps and cancer and is a valuable adjunct to other screening techniques, as it extends direct visualization of the bowel from the previous limits of the 25-cm rigid sigmoidoscope to the entire colon. Although it is too costly as a screening technique, it complements the air contrast barium enema by frequently enabling one to detect polyps and small cancers not visualized by the contrast study

alone. It has also increased the rate of finding other synchronous polyps to 40% in patients in whom a simple polyp is suspected on barium enema (a rate similar to the metachronous rate previously reported). Colonoscopy does allow the physician to remove polyps as well as to detect them. Although the ability to use the scope varies, an experienced colonoscopist reaches the sigmoid 90% of the time, hepatic flexure 85% of the time, and the cecum 80% of the time.[17] Thus it would appear that the experienced colonoscopists would have the potential of extending Gilbertson's findings by detecting colon polyps beyond the sigmoidoscopic range and removing them prior to malignant transformation (at least in cases with villous or villotubular elements). This could have significance in reducing the colorectal cancer prevalence in a carefully followed population group. This hypothesis is under study by both the Minnesota[8] and New York[18] groups.

## Effects of Screening Programs

How good are the screening techniques? Specifically, the Hemoccult slide test in expert hands has been quite effective in a controlled setting. Winawer's data provide a good example of the effectiveness of a Hemoccult screening program.[18] In this program, asymptomatic men and women over the age of 40 are screened by sigmoidoscopy and fecal occult blood testing. If the occult blood test is positive, barium enema is done, followed by colonoscopy and lavage cytology. In a total of 13,127 persons, 95% had proctosigmoidoscopy, 74% satisfactorily performed the test for occult blood, and 2.5% (242 patients) had positive tests. The rate of positivity varied from 1% with older Hemoccult slides to 3.7% for the Hemoccult II slides. The predictability of neoplasm ranged from 44% to 50% (cancer in 12% and adenomas in 38%). Of 59 cancers in the study group, 36 (61%) were detected by Hemoccult test, seven (12%) by Hemoccult and sigmoidoscopy, eight (13.5%) by proctosigmoidoscopy alone, and eight (13.5%) had symptoms leading to further evaluation and final diagnoses. There were 32 prevalence cancers (detected in the initial study) and 27 incidence cancers (detected in the annual followup studies). Two thirds of these were in situ or Dukes A or B cancers.

The excellent compliance with testing as in Winawer's study, in which highly motivated persons are seen in a controlled setting, is contrasted with problems of some large-scale screening projects. The projects we previously discussed had some control built into the design system. A more loosely structured, large-scale screening project was organized and conducted in the Washington, DC, area. The slide tests for occult blood were broadly distributed and with minimal restriction. Of 27,318 persons who received the test slides, only 44% (12,965) returned them. Of these, 419 (3.2%) had positive tests and were asked to be retested on a meat-free, high-bulk diet. Only 76% (321 persons) completed the second test, of whom 27% (87 persons) were again test-positive. A diagnostic workup in 34 patients (39%) showed intestinal pathology in 28 (82%). This included seven gastrointestinal cancers (four colon), five diverticulosis, five colitis, five hemorrhoids or anal fissures, four polyps and two villous adenomas. The initial compliance rate of 44% who returned the tests was low, and the final yield of patients with positive tests on the proper test diet was very low (83 patients or 0.7%). Of concern is the fact that 53 patients who were confirmed test-positive (61%) did not have a diagnostic workup. This highlights the need for a better educational program and closer patient contact during the screening programs. Methods of followup and of informing the patients' physicians need to be enhanced in order to improve the diagnostic detection rate and facilitate a proper patient work-up in cases of positive tests.

## Cost of Screening

The cost of screening and the cost effectiveness are related to the method. The cost effectiveness of sigmoidoscopy has been calculated by Gilbertson[14] and said to be effective. Complete simulation curves encompassing all known data on natural history and screening results for colorectal cancer in standard risk patients have been derived. These curves indicate a very favorable cost-benefit ratio if fecal occult blood testing is done annually and sigmoidoscopy is done every five years. Data from prospective studies are needed to establish the true cost-benefit ratio.

We can do a rough calculation of cost from Winawer's data. If we assume that for 10,000 patients screened, 2.5% will have positive tests on a specialized diet, the cost of this detection would be approximately $20,000 (at $2.00 for a six-slide kit). Presumably the positive tests would have been repeated (add $500). If we assume that a workup including colonoscopy and barium enema would cost about $1,000, then the total cost of workup would be about $250,000. If 50% had a neoplasm diagnosed (38% benign, 12% malignant), then approximately 30 patients with cancer and 95 patients with polyps would have been found. If two-thirds of the cancers can be considered surgically cured (in situ, Dukes A or B),

then 20 of the cancer patients and 95 of the patients with polyps (generally considered premalignant) would have been salvaged and returned to the work force. Total cost of this detection is $270,500, or $27.05 per person in the total cohort of 10,000 persons. Although this is a substantial cost, it must be weighed against the cost of treating the same group of patients presenting with clinically overt disease, i.e., 20 of the potentially curable cancer patients, and, let us say, 50% or 47 of the patients with benign polyps. At least 45% of these would then be presenting with Dukes C or D lesions, using Gilbertson's data from his control group. The cost of primary treatment of these patients, assuming a minimal hospitalization of three weeks and including surgery, nursing care and specialized care, is conservatively in the range of $8,000 to $10,000. If we carry out the arithmetic, the immediate cost might be in the range of 67 patients × $9,000, or $603,000. This does not take into account that patients with Dukes C or D lesions frequently require extended care postoperatively, i.e., postoperative radiation requires five weeks, delaying and possibly preventing return to work. And even then, two-thirds of the Dukes C patients are ultimately lost. The financial cost can be calculated, but the cost in human terms is incalculable.

## Cancer Society's Recommendations

The previous American Cancer Society recommendations as outlined in the brochure *Developing a Colorectal Cancer Screening Program* (1977) stated that the digital proctoscope and occult blood examination should be included in the regular checkup of all persons over age 40. Currently the Society's recommendation is that all persons age 40 and over should have a digital rectal examination annually; an annual stool guiac slide test should be added at age 50, and sigmoidoscopy should be performed every three to five years after two initial negative sigmoidoscopies one year apart. Persons who are at a high risk of developing colorectal cancer should receive more frequent and intensive examinations beginning at an earlier age. This includes persons with familial polyposis, Gardner's syndrome, ulcerative colitis, a history of polyps or prior colon cancer, and a family history of cancer of the colon or rectum.

The American Cancer Society's recommendations regarding fecal occult blood testing are based on a conservative estimate of the value of hemoccult testing from current trials. Although this point of view is understandable in light of current economics, this reviewer believes that the cost of a yearly test for occult fecal blood in patients over age 40 is minimal (generally under $3), and that the benefit to the individual patient of an early-detected polyp or cancer far outweighs the cost to the patient as an individual and to the group involved in testing (including the physician).

The value of screening for colon cancer was also addressed by a Consensus Development meeting held by the National Cancer Institute in June, 1978, which pointed out that currently there were insufficient data to prove that screening by occult blood testing could significantly reduce the mortality from colorectal cancer. Until the data were more convincing, it was thought, mass screening programs should not be initiated by the Institute's Division of Cancer Control and Rehabilitation. This of course does not obviate efforts by individual physicians or interested investigative groups.

## Screening in Virginia

A Colorectal Cancer Screening Committee was organized under the auspices of the American Cancer Society and the Cancer Committee of The Medical Society of Virginia at a meeting in Charlottesville in July, 1979, chaired by the author and including representatives from major regions in the state (Drs. S. Harris, J.S. Horsley, M.C. Wilhelm, R. Berry, D. Rice). The major discussion focused on developing screening efforts using tests for occult blood in the stool. It was stressed that such programs need to be physician-directed and carefully designed and monitored in order to be effective and to minimize waste. Each region in the state has its own particular needs for screening as well as potential problems best dealt with by interested professionals in that region. In order to develop a screening program in a region, it is essential to have an interested physician-director, adequate logistic support by health care professionals (nurses, a health or hospital laboratory), and good community support by volunteer lay personnel.

The committee did not (nor were they in a position to) make firm decisions or commitments to screening in their selected regions, but all agreed to investigate the potential for developing a screening process which would be compatible with their region's needs.

Professional and lay personnel have interacted under the auspices of the American Cancer Society to further the goals of screening in the state. At the 1980 annual meeting of the American Cancer Society in Williamsburg, selected members of the Public Education Committee representing major regions in Virginia gathered together to plan strategies for lay participation in programs to screen for colorectal cancer.

A Colorectal Cancer Screening Task Force was formed, with these major objectives: 1) to assist in implementing physician-directed screening programs in different regions of the state; 2) to stimulate lay interest in colorectal cancer screening; and 3) to broaden the scope of existing colorectal cancer screening programs.

Several programs have now been started or are scheduled for the near future. A mass screening effort was organized by Dr. David Rice of the Pratt Clinic in Fredericksburg and held at the Public Health Department of Caroline, Spottsylvania, and King George Counties on May 16, 1980. Although the numbers were small (211 patients screened), 90% returned the slides to the laboratories, which was excellent compliance.

A pilot study was started last spring at the University of Virginia in which a screening booth staffed by volunteers from the Nursing School was set up in the hospital lobby during visiting hours. Literature was made available, and there were continuous showings of educational slides about colorectal cancer screening (courtesy of Smith Kline & French) which provided information to visiting relatives and friends of hospital patients. Although only about 60 persons per month picked up slides (about 80% have returned them), much was learned about improving ways to increase public interest and compliance.

Some communities planning programs include Harrisonburg and Lynchburg. The Women's Service League of Northern Virginia has begun a project to reach senior citizens in Alexandria and Arlington and Fairfax Counties. A major continuing screening effort is in process at Roanoke Memorial Hospital under the direction of Dr. Robert Berry. Many other programs are planned for the coming months throughout the state. One major screening effort has been completed in Floyd County.

## Conclusion

An ultimate goal of these efforts to initiate screening programs for colorectal cancer in Virginia is education of the lay public in the need and potential benefit of screening (even accepting the caveats of the National Cancer Institute consensus meeting on the subject) and encouragement of screening for colorectal cancer by general physicians in the state. If all patients over age 40 in Virginia see a physician yearly or every other year and have a rectal examination and a proper physical examination (with the three-day test for fecal occult blood), one might expect to see an increased rate of detection of earlier, curable cancers, as well as detection and elimination of polyps, with the possibility of effecting an appreciable reduction in the morbidity and mortality rates of colorectal cancer. This in effect would be translating Gilbertson's study, which showed this effect in a community, to an entire state. There is a strong community spirit in Virginia that might well make this possible.

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# Grand Rounds: Psittacosis

From the Division of Immunology and Connective Tissue Diseases, Medical College of Virginia/Virginia Commonwealth University. Discussed by George F. Moxley, MD.

## Case Presentation

ROBERT BROCK, MD: A 51-year-old pet shop owner was admitted to the Medical College of Virginia Hospitals on 5/1/80 for fever. One month prior to admission she had mouth-to-beak contact with several sick parakeets; some of these birds died. Five days before admission, she developed chills, headache, neck stiffness and soreness, anorexia and malaise. She rested in bed and took aspirin or a combination analgesic of oxycodone and aspirin (Percodan®). Two days prior to admission she developed a nonproductive cough and sweating at night. The following day she felt feverish and consulted her physician. There was a history of dark urine and dysuria but no cough, epistaxis, chest pain, nausea, vomiting or skin rash.

Address correspondence to Dr. Moxley at Box 263, MCV Station, Richmond VA 23298.

Presented on 6-10-80.

Another worker at the pet shop had had similar symptoms but no cough. It was not known if he had sought treatment.

There was a past history of rash from penicillin. She had been treated 20 years for seronegative rheumatoid arthritis, which was in remission. She had received courses of gold, antimalarials, corticosteroids and nonsteroidal antiinflammatory drugs. Elevations of serum liver enzymes four years before admission were thought secondary to a nonsteroidal antiinflammatory drug. She had smoked heavily for many years. The review of systems and family history were otherwise noncontributory.

Physical examination revealed a temperature of 104°, respirations 32/minute, the pulse 100/minute and regular, the blood pressure 120/70 mm Hg. She was alert, oriented, cooperative and obese and appeared in moderate distress. The only positive findings were tenderness over the posterior neck muscles, rales over the left anterior hemithorax, synovial thickening of the knees and Heberden's nodes. Neither the liver nor the spleen were enlarged.

Laboratory data revealed a hemoglobin of 12.2 gm/dl, leukocyte count of 7,900 with a shift to immature granulocytes. The serum chemistry values were normal except for an alkaline phosphatase 214 U/l., SGOT 82 U/l., SGPT 64 U/l., total bilirubin 1.7 mg/dl and albumin 3.2 gm/dl. An arterial specimen of blood, drawn while the patient was breathing room air, showed $PaO_2$ 81 mm Hg, $P_aCO_2$ 31, pH 7.47. The urine was positive for conjugated bilirubin and protein but was otherwise normal. An elec-

trocardiogram was normal except for left atrial enlargement. A chest radiograph showed a patchy infiltrate in the left upper lobe and over the right lower lung field. She could not produce any sputum.

Psittacosis was strongly suspected, and the patient was placed in respiratory isolation and treated with oral tetracycline 2 grams per day in four divided doses. Her temperature became normal overnight, and she was discharged three days later to complete a ten-day course of tetracycline.

Complement-fixation antibody titers for psittacosis-lymphogranuloma venereum, three and 12 days after admission, were positive at 1:16 and 1:256 dilutions, respectively.

## Discussion

GEORGE MOXLEY, MD: Psittacosis, or parrot fever, is an infectious disease of birds that is transmitted to man. It is a generic term for all forms of disease caused by *Chlamydia psittaci.*

### Microbiology

Two species of chlamydiae may be distinguished, *C trachomatis* and *C psittaci.* The inclusions of *C trachomatis* stain with iodine because of the glycogen content; those of *C psittaci* do not. *C trachomatis* is sensitive to sulfonamides, whereas *C psittaci* is not. *C trachomatis* causes mainly human disease, whereas *C psittaci* causes disease in man and other vertebrates. The serotypes of *C trachomatis* are responsible for the human diseases of lymphogranuloma venereum, trachoma, neonatal inclusion conjunctivitis and genital tract infections, including 40-50% of nongonococcal urethritis. *C psittaci* does not have any distinguishable serotypes but has strains of varying virulence.

The chlamydiae are neither viruses nor bacteria. They are virus-like in that they are obligate intracellular parasites which cannot make ATP. Therefore, by definition they are always pathogens, although the infection is often latent. The chlamydiae are bacteria-like as well: They have two nucleic acids rather than DNA or RNA alone was found in viruses; they have discrete cell walls similar to that of the gram-negative bacilli; they are susceptible to antibiotics; and they reproduce by binary fission.

The chlamydiae have a unique developmental cycle lasting about 48 hours in which there are two forms, the elementary body and the initial body. The *elementary* body is the extracellular infectious form which attaches to the host cell surface and is phagocytosed. The elementary body is then reorganized and converted to the *initial* body, the intracellular form capable of metabolism and binary fission but not capable of infection. Then, 18-24 hours after ingestion of the elementary body, the initial body is reorganized and converted back to the extracellular infectious form, completing the cycle.

### History

Jürgensen described human illness associated with parrots in 1874. Following an epidemic in Paris in 1892, Morange coined the term psittacosis from the Greek for parrot, *psittakos.* Repeated sporadic outbreaks of illness occurred in Europe and the United States after importation of pet birds from South America. In the pandemic of 1929-30, about 1,000 cases, including several hundred deaths, were attributed to psittacosis. In 1930 Bedson isolated a filterable etiologic agent which he thought was a virus. Quarantines in most countries suppressed the epidemic form of disease due to imported birds, but sporadic cases of psittacosis remained. Hence, the endemic form of the disease was then described.

### Epidemiology

*C psittaci* causes both latent and acute disease in birds. Latent infection is the rule, but conditions of stress such as crowding, poor feeding, poor sanitation or chilling are more likely to produce an acute avian infection. This infection is manifested by conjunctivitis, diarrhea and lack of feeding. Almost any species of bird may be infected and may act as a natural reservoir of the disease for spread to other species. The reservoirs of importance to human infection are pet birds such as parakeets and cockatiels, pigeons both domestic and wild, and turkeys. Pet birds and pigeons mainly cause sporadic disease, but turkeys cause epidemic disease.

The infection is transmitted from birds to humans usually by inhalation of the etiological agent in dried feces but also by handling of infected tissue. Apparently healthy birds may transmit the infection: In 1909 in Germany, two normal-appearing parakeets infected every one of 26 persons who entered the room where they were kept.

Psittacosis is both an avocational and a vocational disease. Those at risk are bird breeders and fanciers, pet shop employees, bird quarantine area and zoo workers, veterinarians and poultry processing plant workers.

The incidence of psittacosis had declined until 1973, when 36 cases were reported to the Center for Disease Control. Epidemics in 1974 and 1976 occurred in turkey processing plants. In the 1974 epidemic, 114 of approximately 1,000 employees at several plants in Texas, Nebraska and Missouri had an

illness compatible with psittacosis. Those at most risk were in the kill-and-pick and evisceration areas in the plants. The sources of the infected birds processed were several turkey flocks in eastern Texas. It was suggested that migrating birds had introduced the infection into those flocks. The epidemic was arrested by serological surveillance of the flocks, followed by treatment of seropositive flocks with tetracycline. Despite the surveillance, a recurrence of psittacosis occurred in Nebraska in 1976, with 28 of 98 employees infected. Again the source was a turkey flock in eastern Texas.

Transmission may also occur from one human to another. One man in Sweden, who probably acquired his disease from a pet shop, transmitted the disease to his son, a neighbor, a patient in the same hospital room, and eight personnel on the infectious disease ward. He died from the infection.

### Pathogenesis

The agent of psittacosis enters the respiratory tract and goes thence to the reticuloendothelial system cells of the liver and spleen, where it replicates. The agent then spreads systemically by the bloodstream and has a propensity to infect the lungs.

### Clinical Manifestations

Psittacosis may present as a systemic febrile illness or as a pneumonia with a viral-like prodrome. The incubation period is usually 7-15 days but may appear longer because of latency of infection. The onset of symptoms may be gradual or abrupt.

Table 1 gives the clinical manifestations reported in an epidemiologic survey. The patient often notes fever, a sore throat, myalgias of the back and neck, arthralgias and a severe headache followed by a cough, which is usually nonproductive. Photophobia and chills may occur. Blood streaking of sputum may occur, but pleuritic chest pain is rare. Epistaxis occurs in one quarter of cases. Horder's spots, a rash like the rose spots of typhoid fever, may appear. The physician finds fever without tachycardia, as with Legionnaire's disease and mycoplasma pneumonia, as well as rales without signs of consolidation. Hepatomegaly occurs commonly though jaundice is rare, and splenomegaly occurs in 10-70% of patients. Pneumonia in association with splenomegaly should alert the physician to consider a diagnosis of psittacosis. Peri-, myo- and endocarditis may occur. Altered mentation may occur and is probably related to hypoxemia. Acute pancreatitis and acute renal failure have complicated severe cases.

**Table 1. Clinical Manifestations of Psittacosis.**

Of 302 confirmed or presumptive cases reported to the Center for Disease Control, 1975–78:

| | | |
|---|---|---|
| Fever | 240 | (79.5%) |
| Pneumonia | 190 | (62.9%) |
| Cough | 146 | (48.3%) |
| Weakness, fatigue | 116 | (38.4%) |
| Headache | 115 | (38.1%) |
| Chills | 109 | (36.1%) |
| Myalgia | 80 | (26.5%) |
| Anorexia | 46 | (15.2%) |
| Nausea, vomiting | 39 | (12.9%) |
| Diaphoresis | 33 | (10.9%) |

### Laboratory Findings

Usually the leukocyte count is normal. Abnormalities of the blood chemistries indicating liver disease are said to be uncommon, but in the 1977 Swedish outbreak mentioned above, five of 12 patients had elevations of alkaline phosphatase and nine had elevations of transaminases. The magnitude of elevation was not stated in the report. Chest radiographs usually show indistinct patchy lower lobe infiltrates which exceed the extent of physical findings; however, there may be lobar or reticular or nodular infiltrates. Pleural effusions are rare.

### Diagnosis

Psittacosis is a *clinical* diagnosis. One suspects it in any patient with a systemic febrile illness or a pneumonia who has a history of bird contact. However, 10-20% of patients will not recall the contact. The diagnosis is confirmed by obtaining complement fixation antibody titers. A single titer of 1:16 in the context of a compatible illness is enough to presume the diagnosis; a four-fold rise in antibody titer in the context of a compatible illness is confirmatory. Mycoplasma pneumonia may mimic psittacosis but occasionally can be distinguished by the presence of bullous myringitis.

### Treatment

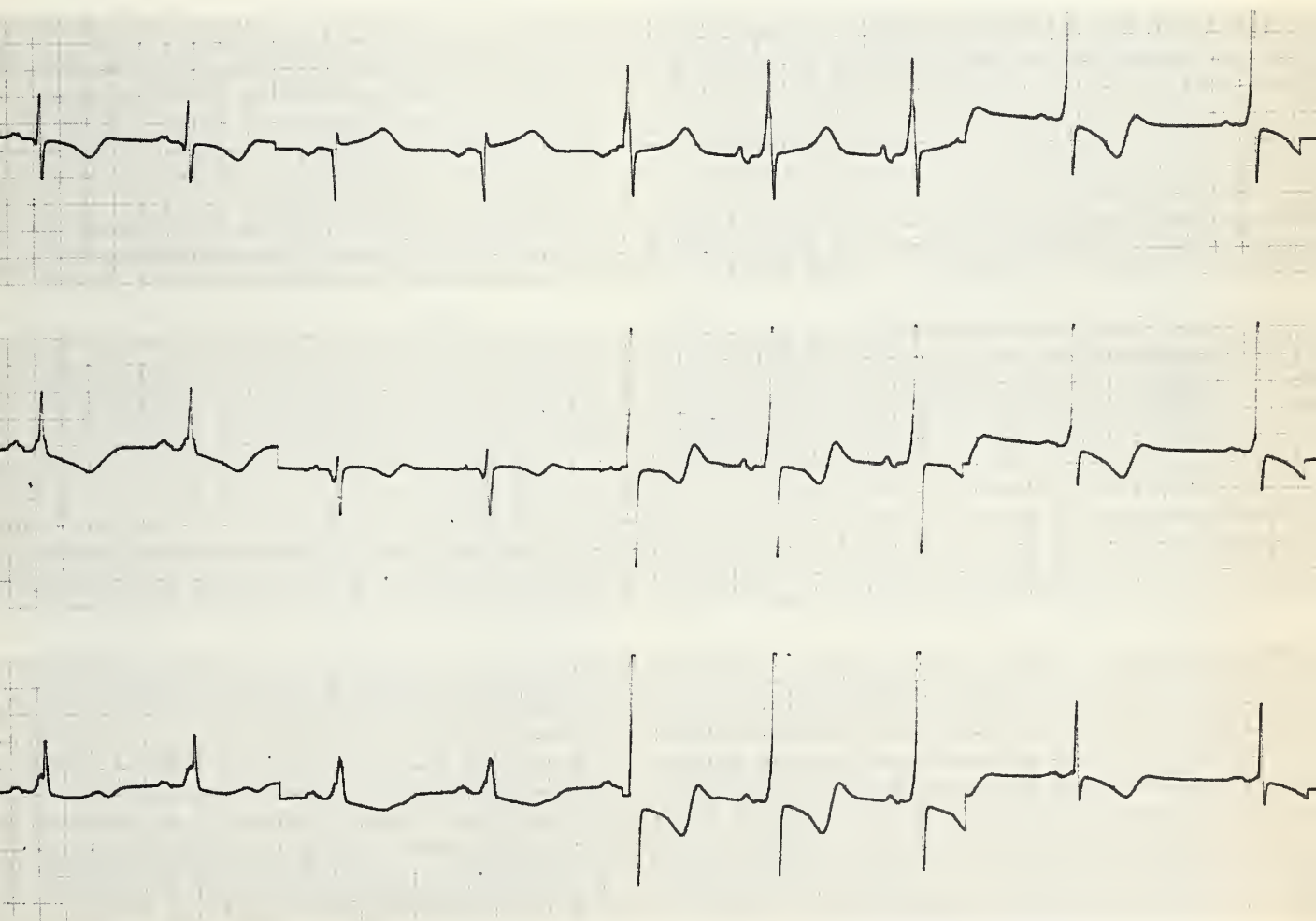
If psittacosis is strongly suspected, therapy should be instituted without waiting for serologic reports. The therapy of choice is tetracycline, either 2 grams per day orally or 1 gram per day intravenously in four divided doses. It should be continued for ten to 14 days after defervescence. The fever usually resolves in two or three days. Relapses are common. The antibiotic therapy may delay a rise in complement fixation antibody titer. Alternative therapies are chloramphenicol 2-4 grams per day orally or intravenously, or penicillin 1 million units intramuscularly three times per day.

*Continued on page 252.*

# Can You Diagnose This?

A medical puzzle prepared by
Ann Grady, MD, and Donald Romhilt, MD, *Richmond, Virginia*

This electrocardiogram was obtained from a 57-year-old man who came to the emergency room with the complaint of an episode of palpitations and shortness of breath earlier in the day.



DIAGNOSIS/DISCUSSION NEXT PAGE.

## Diagnosis

Wolff-Parkinson-White pattern, type A.
Left atrial enlargement.

## Discussion

In this electrocardiogram, a prominent delta wave is present, typical of the Wolff-Parkinson-White (WPW) pattern; however, the PR interval is .20 seconds. The presence of the WPW pattern without a short PR interval raises at least two possibilities.

The first possibility is prolongation of the PR interval with aging. This tracing was taken in 1980. The patient had prior electrocardiograms in 1974 with a PR interval of .12 seconds with the typical WPW pattern; thus this may represent prolongation of the PR interval with age.

A second possibility is that this represents preexcitation secondary to conduction through the Mahaim bundle. In the classical WPW syndrome, the accessory pathway (bundle of Kent) bypasses the atrioventricular node entirely, resulting in a short PR interval of .12 seconds or less. The sinus impulse transmitted via the bundle of Kent causes abnormal preexcitation in a region of the ventricle, producing the slurring of the initial portion of the QRS complex (delta wave), prolongation of the QRS duration and accompanying ST-T wave changes. In contrast, the Mahaim tract connects either the lower AV node, upper His bundle or one of the bundle branches to the interventricular septum. When the Mahaim bundle is involved, the sinus impulse is conducted with the usual delay through the upper portion of the atrioventricular node, resulting in the normal PR interval. The impulse then passes down the Mahaim fibers to the basal part of the ventricular septum, causing the inscription of the delta wave and a wide QRS complex. The Mahaim type is the least common form of preexcitation.

A third type of preexcitation is due to a bypass tract with James fibers. This anomalous pathway results from paranodal fibers that conduct the sinus impulse into the His bundle, avoiding the delay in the atrioventricular node. This is referred to as the Lown-Ganong-Levine pattern, with electrocardiographic findings of a short PR interval and a normal QRS duration.

Paroxysmal supraventricular arrhythmias are common in patients with preexcitation, occurring in about 40-60%. In the majority, antegrade conduction is through the normal atrioventricular pathway, with retrograde conduction through the accessory pathway, so that the QRS complex during the tachycardia will have a normal configuration. With the Mahaim type of preexcitation, antegrade conduction during the tachycardia is usually through the accessory pathway and retrograde conduction is through the normal atrioventricular node, resulting in a QRS complex that is wide and bizarre. This patient had old electrocardiograms with a paroxysmal supraventricular tachycardia at a rate of 200 per minute and a wide QRS of .12 seconds.

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From the Department of Medicine, Division of Cardiology, Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Romhilt at Box 51, MCV Station, Richmond VA 23298.



Submitted 9-5-80.


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*Continued from page 250.*


The mortality before antibiotic therapy was 20-40% but is now less than 1%.

**Prevention**

Psittacosis will never be eliminated because of the world-wide natural reservoir in wild birds. Public health measures aimed at pet birds and turkeys may help in controlling it. These include quarantines for imported psittacine birds, treatment of birds with tetracycline-impregnated feed, and serologic surveillance and treatment of turkey flocks. However, failures of these measures may occur.

*C psittaci* has been cultured from supposedly treated birds taken from quarantine centers. This was because the birds did not eat the tetracycline-impregnated feed. In the 1976 Nebraska epidemic, representative individuals in the turkey flocks were seronegative, yet the processed birds transmitted the disease.

Even if a patient has recovered from a bout of psittacosis, reinfection with another strain of *C psittaci* may occur. The quarantines or serological surveillance of birds should be maintained therefore, even if all persons exposed have had psittacosis.

*Selected references on request.*

# ABSTRACTS

*These are abstracts of papers to be presented at the annual meeting of the Virginia Surgical Society on May 1-3 in Williamburg. Stanton P. Nolan, MD, is program chairman.*

**Gastroplasty for the Obesity Hypoventilation Syndrome.** Harvey J. Sugerman, MD, James A. L. Mathers, MD, R. Paul Fairman, MD, and Lazar J. Greenfield, MD, *Richmond.*

Hypoxemia and hypercarbia have been considered contraindications to the surgical treatment of morbid obesity. We have performed gastroplasty on 46 patients with an average weight of 159 kg (range 104 to 225 kg). Four patients (mean weight, 135 kg) were incapacitated from the obesity hypoventilation syndrome (OHS). In addition, one of these patients, MM, has the sleep apnea syndrome. $PaO_2$'s on ambient air were 45, 46, 54, and 55 torr and $PaCO_2$'s were 68, 49, 46 and 44 torr, respectively. The other 42 patients had $PaO_2$'s > 65 Torr and $PaCO_2$'s > 40 Torr.

The four patients with OHS required an average of four days of postoperative mechanical ventilation in the intensive care unit. The patient with sleep apnea underwent tracheostomy. Their course was otherwise uneventful. None of the other patients needed intensive care. Marked improvement in arterial blood gases and pulmonary function tests were seen within three to five months after 22 to 28 kg weight reduction. On the average, $PaO_2$ on ambient air rose from 47 to 72 torr, $PaCO_2$ fell from 54 to 42 torr, vital capacity increased from 2.0 to 2.8 liters, and maximum voluntary minute ventilation increased from 66 to 76 liters/minute.

Weight reduction occurred with a decreased caloric intake associated with early satiety. Each of the patients felt greatly improved and claimed an increased exercise tolerance. Sleep capneography demonstrated cure of the sleep apnea syndrome in patient MM, permitting removal of the tracheostomy. Gastroplasty was an effective operation for morbid obesity with high patient satisfaction and without the complications of jejuno-ileal bypass. The safety, speed and simplicity of the procedure make it reasonable to offer patients with the obesity hypoventilation syndrome. Hypoxemia and hypercarbia appear to be strong indications for the treatment of morbid obesity instead of contra-indications as previously assumed.

**Percutaneous Transluminal Balloon Angioplasty of Iliac Occlusive Disease in Conjunction with Distal Vascular Operations.** H. A. Wellons, Jr., MD, C. J. Tegtmeyer, Jr., MD, and I. K. Crosby, MD, *Charlottesville.*

The development of percutaneous transluminal balloon angioplasty (PTBA) has encouraged our selective utilization of this procedure in peripheral vascular disease. Between October 1, 1978 and July 1, 1980, 17 patients have had PTBA of iliac lesions; nine as isolated procedures and eight in conjunction with distal bypass operations. Patient selection was made on the basis of : 1) a discrete stenosis in the iliac system; 2) medical contraindications to operative intervention, or, 3) the presence of iliac lesions of uncertain hemodynamic significance in patients for whom a distal bypass procedure was planned.

Systolic pressure gradients measured across the lesion prior to PTBA ranged from 0 to 122 mm of mercury (average 42.7) and post-PTBA were 0 to 24 mm of mercury (average 3.6). The eight patients having no associated operation had a pre-PTBA average gradient of 57.8 mm of mercury (19 to 122); three with isolated iliac disease became asymptomatic; five with distal occlusive disease showed improvement in symptoms or by non-invasive testing; one having no improvement had a pre-PTBA gradient of 19 mm of mercury and had a myocardial infarction prior to a planned distal procedure.

Distal bypass procedures were performed because of lack of symptomatic improvement or no significant improvement in hemodynamics by non-invasive testing. The eight patients having associated distal bypass procedures had an average pre-PTBA gradient of 21.3 mm. of mercury (0 to 35). All patients have had improvement by non-invasive testing and improvement or complete relief of symptoms. There have been no complications and no deaths related to PTBA in this series. We feel that percutaneous transluminal balloon angioplasty is a valuable addition to the armamentarium of the vascular surgeon.

**Estrogen Binding Activity in Nonbreast Human Cancers.** James P. Neifeld, MD, *Richmond.*

One hundred thirty-four nonbreast human cancers were assayed for estrogen binding activity. Sucrose density gradient analysis was employed to compare the results obtained with those published using other

techniques and to examine migration on the gradient. Endometrial and male breast cancers and significant binding activity with migration patterns similar to that noted in hormonally responsive tissues and tumors; one (of 43) colorectal cancers had significant binding with migration consistent with estrogen receptor activity. Other cancers did not show significant binding and did not migrate similar to true receptor binding. These data suggest that tumors not normally hormonally responsive rarely contain significant estrogen binding activity the binding present usually does not migrate the way true receptor does; and, therefore, the binding previously described (using other techniques) may not be due to true estrogen receptors.

**Parathyroid Autotransplantation in a Community Hospital.** Carol J. Kite, MD, Robert E. Berry, MD, Carl H. Bivens, MD, Newell Falkinburg, MD, and Bruce D. Baird, MD, *Roanoke.*

Significant numbers of patients on hemodialysis today are experiencing the sequelae and complications of long-term dialysis, namely, renal osteodystrophy from secondary hyperparathyroidism. This is usually a result of dietary noncompliance as well as medical noncompliance. Our approach in treatment of renal osteodystrophy and pruritis secondary to renal failure is total parathyroidectomy with autotransplantation.

To date we have performed eight radical parathyroidectomies with autotransplantation of a portion of the most normal appearing gland into the forearm muscle (brachioradialis). These patients have shown dramatic clinical improvement with loss of bone pain and pruritis, as well as radiographic improvement of hand x-rays. Pathological examination of all parathyroid glands removed has revealed hyperplasia. Graft function has been documented by comparing serum parathyroid hormone levels of the grafted and nongrafted forearm. At present, our longest followup is 17 months, having experienced minimal morbidity and no mortality. We have also found gland localization with pre-op CT scan or ultrasound of the neck to be of no value.

At a metropolitan community hospital total parathyroidectomy with autotransplantation can be performed with minimal morbidity and limited hospital stay. This paper will present an ongoing study of patients treated at Roanoke Memorial Hospitals.

**Boerhaave's Syndrome and Its Management.** Ranes C. Chakravorty, MD, *Salem.*

The postemetic "spontaneous" rupture of the lower end of the esophagus—eponymically termed Boerhaave's syndrome, is recognized more and more frequently. If the possibility is not kept in mind, the diagnosis may be missed in the earlier stages with lethal consequences. Three cases seen at the Veterans Administration Medical Center, Salem, are presented with a discussion of the diagnosis and management of this catastrophic occurrence.

Herman Boerhaave (1668–1738) was one of the most influential Dutch clinicians of the 18th century. In the small corpus of his writings is included the classic description of postcibal, postemetic "spontaneous" esophageal rupture. Boerhaave's life, with special reference to his patient with esophageal rupture, will be reviewed in this context.

**Hartmann Procedure for Freely Perforated Sigmoid Diverticulitis.** Wyatt S. Beazley III, MD, and Harry W. Easterly, III, MD, *Richmond.*

Diverting right transverse colostomy with pelvic drainage has long been the standard therapy for perforated sigmoid diverticulitis. Several studies have confirmed our belief that primary resection without anastamosis (Hartmann procedure) is a better choice of treatment, giving lower mortality and morbidity. In a recent two-year period, we saw ten patients with perforated sigmoid diverticulitis and 49 other patients requiring surgical treatment of sigmoid colon lesions. One of the ten patients with perforation had a large subcutaneous abscess treated by drainage alone with subsequent one-stage colectomy. Six patients with free intrapertioneal rupture had Hartmann procedures. Only one of these six, average age of 70, had had previous attacks of diverticular disease. There were no deaths in the entire series. There were two significant complications: one patient had a prolonged ileus requiring hyperalimentation and another patient needed drainage of a pelvic abscess per rectum. All patients have undergone successful colostomy take down and re-anastamosis. Twenty patients with uncomplicated diverticulitis underwent sigmoidcolectomy with anastamosis, two with proximal decompression. One patient underwent a three-stage resection.

The historical origins of the Hartmann procedure are reviewed and the rational for its use in freely perforated sigmoid diverticulitis is discussed. Details of the procedure and subsequent colon re-anastamosis are given.

**Evaluation of Gastroesophageal Reflus: New Myths and Old Problems.** Richard A. Marfuggi, MD, George C. Hoffman, MD, and John H. Vansant, MD, *Norfolk.*

Although gastroesophageal reflux occurs in normal

individuals, many patients with significant symptoms of reflux esophagitis have few objective findings. Because of the difficulty in recognizing symptomatic gastroesophageal reflux, new techniques of laboratory evaluation are continually being developed. To assess the value of a battery of studies used to demonstrate gastroesophageal reflux or its sequelae, we have reviewed the laboratory data in a consecutive series of 109 patients who were evaluated for symptoms or complications of gastroesophageal reflux severe enough to warrant an anti-reflux procedure. These tests included barium esophagram–upper GI series, esophagogastroduodenoscopy, esophageal forceps biopsy, pH reflux study, esophageal manometry, acid perfusion test and gastroesophageal scintiscan.

Gastroesophageal reflux per se was difficult to demonstrate and was actually seen in only 40% of patients. A hiatal hernia was visualized by endoscopic examination in 13% of patients in whom the esophagram was normal. The barium esophagram–upper GI series was unreliable in demonstrating strictures or esophagitis compared to esophagogastroscopy which was extremely accurate in determining both conditions. Esophageal forceps biopsy, pH reflux study, esophageal manometry and the acid perfusion test were helpful in special situations but were not consistently reliable and contributed little additional information to the radiographic and endoscopic evaluations.

We conclude that the barium esophagram–gastrointestinal series and the esophagoscopic examination continue to be the most sensitive and reliable combination in objectively documenting the presence of gastroesophageal reflux in symptomatic patients. The newer techniques of manometry, pH reflux study, acid perfusion and gastroesophageal scintiscan do not provide significant additional information in a standard evaluation of these patients.

**Carcinoma of the Pancreas—Efforts to Improve Palliation.** L. W. Rue, BS, G. W. Hubbard, MD, and H. J. Wanebo, MD, *Charlottesville.*

Surgical therapy of carcinoma of the pancreas has primarily been a palliative effort in which there has been increasing use of multimodality therapy. We have addressed the questions of whether radiation and chemotherapy augment survival in surgically treated patients and whether gastric bypass should be combined with biliary decompression to achieve the most effective palliation. A total of 152 patients (85 males, 67 females) with adenocarcinoma of the pancreas were treated between 1958–1978. Combination therapy in this era consisted of surgery (usually palliative), radiation (usually 4000 rads), and chemotherapy (usually 5FU given as a loading dose 15 mg/kg × 3 with weekly maintenance therapy). One group of 56 patients had surgery only, whereas the second group of 26 patients had surgery plus combined therapy. The surgery alone group had a mean survival of 4.0 ± 1 months whereas those receiving combined therapy had a mean survival of 13.4 ± 3 months, $P < 0.05$. However, when the data was corrected for stage, there was no significant difference between surgery alone and surgery plus combination therapy. Regarding the bypass issue, 32 patients underwent biliary bypass with an operative mortality of 13% and a mean survival of 10 months. Six of the patients (19%) required subsequent gastric bypass an average of 4 months later and had a 40% operative mortality and a means survival of 5 months. Seven patients had both biliary and gastric bypass without an operative mortality, mean survival 9 months. Although the double bypass done primarily does not increase survival it may be superior to biliary bypass alone in terms of avoiding the need for secondary bypass surgery (19% in this series) with its morbidity and high mortality.

We conclude that only prospective examination by clinical trial can determine benefits of palliative chemotherapy and radiation. The role of double bypass is also potentially answerable by clinical trial although retrospective analysis of large data samples may provide adequate data.

**Gastric Partitioning in the Treatment of Morbid Obesity.** Anthony C. Cetrone, MD, John W. Baker, Jr., MD, George C. Hoffman, MD, Claiborne W. Fitchett, MD, and John H. Vansant, MD, *Norfolk.*

Over a 12-month period we performed 21 gastric partitionings for morbid obesity. Eight patients had complications. There were no deaths.

Three patients were lost to long term followup. The remaining 18 were followed for an average of 12 months (2 to 24 months). Four had unsatisfactory weight loss, three had an equivocal result, and eleven had an unsatisfactory result defined as failure to lose weight.

Our experience with gastric partitioning clearly failed to produce satisfactory weight loss in a majority of patients and we have, therefore, abandoned this procedure in the treatment of morbid obesity.

# ABSTRACTS

*These are selected abstracts of papers presented at the annual meeting of the Virginia Society of Hematology on June 13-14, 1980, at Virginia Beach.*

**Treatment of Carcinoma of the Pancreas and Liver with Hexamethylmelamine.** D. S. Oldham, MD, and G. L. Wampler, MD, *Richmond.*

Hexamethylmelamine (HXM), an antitumor agent which has been shown to have activity in a number of solid tumors, has not been adequately evaluated in carcinoma of the pancreas and liver.

Ten patients with adenocarcinoma of the pancreas were given HXM on a VOG protocol. The dose used was 8 mg/kg/day given orally. Three patients refused the drug after very brief periods because of nausea and vomiting. Five patients had measurable disease, one of whom had a partial response with disappearance of an abdominal mass for 5 months. Median survival for the ten patients was 8 months. Three patients had received previous chemotherapy and two previous radiation therapy.

Three additional patients with adenocarcinoma of an unknown primary site metastatic to liver were also treated. One of these patients, who at autopsy was shown to have a hepatoma, had a partial response lasting 5 months.

Previous studies in pancreatic carcinoma used HXM as second line treatment with poor results. Our experience suggests that HXM may have significant activity in adenocarcinoma of the upper gastrointestinal tract when used as first line therapy. We are pursuing these studies and hope to eventually develop a combination treatment using HXM with standard agents.

**Therapy-Associated Acute Non-Lymphoblastic Leukemia: Eight Cases of Erythroleukemia.** S. G. Nayfield, *Richmond.*

Eight cases of therapy-related acute non-lymphoblastic leukemia of the erythroleukemia variety (FAB Classification M6) were seen at the Medical College of Virginia between 1969 and 1979. Primary disease processes comprised Hodgkin's disease (3 patients), non-Hodgkin's lymphoma (1 patient), ovarian cystadenocarcinoma (1 patient), renal allograft transplantation (2 patients), and systemic lupus erythematosis (1 patient); therapeutic modalities for the primary disease included total nodal radiation, chemotherapy with or without local radiotherapy, and chronic immunosuppression. Time from the diagnosis of the primary disease to the development of erythroleukemia varied from 16 months to 8 years, with a mean of 41 months in patients with hematologic primary diseases and of 81 months in other patients.

The diagnosis of erythroleukemia was apparent at the initial presentation of unexplained cytopenias in all patients: large numbers of vacuolated erythroblasts and severely dysplastic erythroid cells were present in initial marrow aspirates. No "preleukemia" period without clearcut diagnosis was observed. Response to therapy, whether hypertransfusion or aggressive chemotherapy, was poor: mean survival was 3.5 months.

Acute non-lymphoblastic leukemia has been recognized as a complication of therapy for Hodgkin's disease, non-Hodgkin's lymphomas, multiple myeloma, ovarian carcinoma, and connective tissue disease. Erythroleukemia is a morphologic variant which differs from the myeloblastic forms in the absence of the "preleukemia" phase usually seen in therapy-related acute leukemias, and, in this small series, in the longer duration of time from initial diagnosis of the primary disease to the development of leukemia in patients with non-hematologic primary disease. The response to therapy was poor, as in therapy-related myeloblastic leukemia.

**Familial Lymphohistiocytosis: a Case Discussion.** R. J. Sinnenberg, Jr., MD, Fred G. Behm, MD, and Clifford Russell, MD, *Richmond.*

A 3-year-old black male presented with sore throat, fever, cervical lymphadenopathy, hepatosplenomegaly, ascites, and jaundice. Laboratory tests showed an hematocrit of 27.0%, hemoglobin 9.8 gm/dl, a WBC of 3,900 cells/$mm^3$ with differential of 97% lymphocytes and 3% monocytes, and a platelet count of 67,000/$mm^3$. A bone marrow aspirate showed a heterogeneous population of lymphocytes and numerous histiocytes, many of which had phagocytosed red blood cells and lymphocytes. There was active erythropoiesis, but markedly reduced myelopoiesis. The patient died 3 weeks after the onset of symptoms of cardiopulmonary arrest. An autopsy was performed and showed the same lymphohistocytic process in the bone marrow also involving the

lymph nodes, spleen, liver, lungs, thymus, kidneys, and gastrointestinal tract.

FHL is a rare fatal disease entity of unknown etiology thought to have an autosomal recessive transmittance. It is characterized by specific histologic rather than clinical manifestations, but has many similarities to other histiocytoses, with which it may be confused. The clinical presentation, hematologic and histopathologic findings of FHL will be discussed as will the characteristics differentiating this entity from the other histiocytoses.

**Hairy Cell Leukemia: Presentation as Aplastic Anemia.** R. E. Pollnow, MD, *Portsmouth.*

Hairy cell leukemia typically presents as moderate pancytopenia with a bone marrow infiltrated with characteristic cells. Bone marrow hypoplasia of such a degree to lead to the diagnosis of aplastic anemia prior to hairy cell leukemia has only been reported in four British patients. A 41-year-old female presented to our institution with severe pancytopenia and bone marrow biopsies consistent with aplastic anemia. Subsequent diagnostic studies established the diagnosis of hairy cell leukemia. The morphologic, laboratory, and clinical features are to be presented with a review of the literature demonstrating a new etiology when the diagnosis of aplastia anemic is considered.

**Results of Induction Therapy with Vincristine and Prednisone Alone in Adult Acute Lymphoblastic Leukemia: Report of 43 Patients and Review of the Literature.** Charles E. Hess, MD, and John W. Zirkle, MD, *Charlottesville.*

The complete remission (CR) rate in children with acute lymphoblastic leukemia (ALL) who receive vincristine (VCR) plus prednisone (PRED) alone for induction is $> 90\%$ and has not improved with the use of more intensive regimens. In adults with ALL, using the same regimen, a CR rate of only 50% is frequently quoted, and is apparently based mainly on unpublished data on only 13 patients from an early Acute Leukemia Group B protocol. We received the case records of 43 adults with previously untreated ALL seen between July 1, 1966 and December 31, 1978 who received VCR + PRED alone for induction. A CR rate of 66% was achieved and compares to an overall figure of 69% from 94 patients collected from the literature. The CR rate was age dependent with 21/29 (76%) $<$ 50 years of age achieving a CR compared to 4/19 (29%) who were $\geq$ 50 years of age ($p < 0.02$). The median survival for those who receive a CR was 17 months compared to 5 months for those who either failed to achieve a CR or who achieved only a partial remission ($p < 0.001$). All patients who achieved a CR received maintenance therapy and approximately one-half also received CNS prophylaxis with intrathecal methotrexate. The incidence of isolated CNS relapse was 11% in those who received CNS prophylaxis compared to 20% in those who did not ($p = 0.498$). From these results we conclude that adults with ALL probably should receive the relatively non-toxic regimen of VCR + PRED alone for an initial induction trial. The indications for the use of more intensive induction therapy, particularly in those patients who present with one or more of several recognized poor risk factors, are discussed.

**Oxalosis of Bone and Kidney.** Sallie S. Cook, MD, F. G. Behm, MD, and C. L. Johnston, MD, *Richmond.*

Dissemination of calcium oxalate crystals into renal and extrarenal locations may occur in cases of primary and secondary oxalosis. As a result of an enzymatic defect in glyoxalate metabolism, the body synthesizes excess oxalate in cases of primary, or familial, oxalosis. Calcium oxalate precipitates in the kidneys resulting in urolithiasis and renal failure usually in the second decade of life.

This case is a 24-year-old white female who first developed renal failure post-partum in December, 1978. Renal biopsy was interpreted as primary oxalosis with interstitial fibrosis. She required biweekly dialysis and was referred to MCV in January 1980 for possible renal transplantation. Lab work at this time revealed a normocytic normochromic anemia (Hgb-7.6) and a mild thrombocytopenia (platelet count-133,000). Bone marrow aspirate and biopsy showed prominent birefringent needle-like crystals. In the biopsy, these crystals radiated from a central zone and were often surrounded by multinucleated histiocytes (osteoclasts) and fibrous tissue. Abundant new bone formation was also seen. Erythropoiesis, myelopoiesis, and megakaryopoiesis appeared normal.

**Vitamin $B_{12}$ Deficiency: Two Unusual Cases.** Munsey S. Wheby, MD, *Charlottesville.*

Deficiency of Vitamin $B_{12}$ resulting in megaloblastic anemia or neurological disease is extremely rare on a dietary basis. It is usually a result of lack of gastric intrinsic factor secretion, pernicious anemia, or a small intestinal disorder.

The first patient was a 72-year-old woman whose illness was characterized by mental changes. Neurological examination showed decreased vibratory sensation and proprioception in the feet. Hematocrit was 36% with a MCV of 116. Bone marrow showed

megaloblastic development. Serum $B_{12}$ was 65 pg/ml. Detailed review of the diet she consumed for over 40 years indicated a strict vegetarian diet extremely low in vitamin $B_{12}$ content, and this initially appeared to be the cause of the $B_{12}$ deficiency. Further study revealed gastric achlorhydria, absence of gastric intrinsic factor and vitamin $B_{12}$ absorption studies indicative of pernicious anemia.

The second patient was a 26-year-old previously healthy woman. Approximately one year prior to admission she had practically stopped eating to lose weight. She drank seven Pepsi-colas daily and ate a small meal every other day. Her hematocrit was 20% with a white count of 2,100 and a platelet count of 109,000. Bone marrow was megaloblastic. Serum vitamin $B_{12}$ assay was 80 pg/ml and the folate assay was 1.2 ng/ml. A diagnex blue test indicated achlorhydria. Schilling test showed 3.2 and 2% excretion in two baseline studies (normal > 5%). Repeated with intrinsic factor the excretion rose to 24%, a pattern compatible with lack of intrinsic factor secretion. She was considered to have a nutritional folate deficiency and probable pernicious anemia. Two years following treatment with folic acid and vitamin $B_{12}$ the patient was restudied. Gastric analysis revealed a pH of 2 and the presence of abundant amounts of intrinsic factor. Test for serum intrinsic factor antibody was negative.

Thus, the first patient appeared to have a nutritional deficiency of vitamin $B_{12}$ but in fact had findings classical of pernicious anemia. The second patient had a serious nutritional problem and what appears to be a transient loss of intrinsic factor secretion, which returned following correction of her deficiencies.

**Severe Hematologic Complications of Infectious Mononucleosis.** C. A. Medberry, III, MD, and Craig W. Caldwell, MD, *Portsmouth.*

A patient with infectious mononucleosis complicated by severe immune hemolytic anemia and hepatitis is presented. The hematologic complications of infectious mononucleosis are discussed in a review of the English language literature. Some possible mechanisms for the severe sequelae are discussed.


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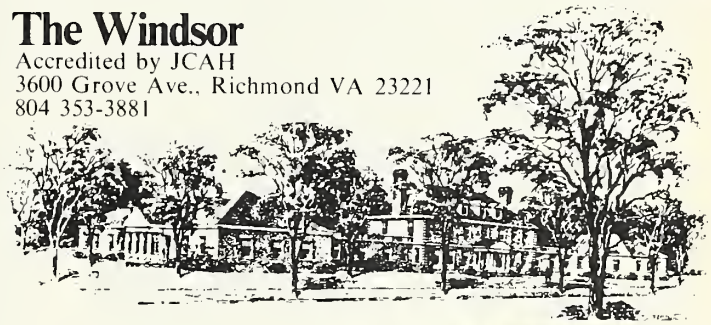

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The Medical Society of Virginia
PROCEEDINGS

# Minutes of Council

A meeting of the Council of The Medical Society of Virginia was held in Richmond at Society headquarters on Saturday, January 31, 1981.

*Members Present:* Dr. Percy Wootton; Dr. H. C. Alexander, III; Dr. George M. Nipe; Dr. Harold L. Williams; Dr. Richard Fields; Dr. Williams S. Burton; Dr. Frederick K. McCune; Dr. Charles M. Caravati, Jr.; Dr. Charles H. Crowder, Jr.; Dr. Glenn B. Updike, Jr.; Dr. William W.S. Butler, III; Dr. Robert C. Green, Jr.; Dr. Nicholas G. Colletti; Dr. J. Thomas Hulvey and Dr. C. Barrie Cook.

*Others Present:* Dr. Anthony J. Munoz, 2nd Vice President; Dr. James R. Holsinger, 3rd Vice President; Dr. William H. Barney, Vice-Speaker; Dr. James B. Kenley, Commissioner, State Department of Health; Dr. Russell D. Evett, Dr. James A. Shield, Jr., Dr. James V. Scutero, Dr. Lawrence V. Marshall, Dr. John A. Owen, Jr., Dr. Ira J. Green and Dr. James L. Patterson, Vice-Councilors; Dr. Carl E. Stark and Dr. F. Ashton Carmines, AMA Delegates; Dr. W. Leonard Weyl, Dr. Raymond S. Brown, Dr. William J. Hagood, Jr., Dr. Arthur A. Kirk, Alternate AMA Delegates; Dr. Edwin Kendig, representing the State Board of Medicine; Dr. William S. Hotchkiss, Member Board of Trustees of AMA; Dr. Harry Kuykendall, Chairman, Vanguard Committee; Dr. Carol Shapiro, representing Prince William County Medical Society; Dr. Paul Mazmanian, special CME Consultant; Mr. Allen Goolsby, Attorney for the Society; Mrs. Carla Mann, representing VaMPAC; and Mr. Edward DeBolt, Society Consultant.

Following the invocation by Dr. Carmines, Dr. Wootton introduced special guests and those Councilors and Vice-Councilors serving for the first time.

**State Board of Medicine**

Dr. Kendig reported on those matters of special interest to both the Board and Society. He stated that the impaired physician problem was currently under study by a special committee of the Society and that the Board was anxious to learn just how the two groups could interact.

Dr. Kendig went on to say that legislation which would have permitted podiatrists to perform amputations of the toes and feet has been withdrawn. It is not a dead issue, however, and the matter will be discussed further at the next meeting of the Board.

Council was then briefed as to the pros and cons of the publication entitled "Board Briefs". This particular bulletin contains information concerning disciplinary actions by the Board and has become the subject of some controversy. There are those groups and individuals, including component medical societies, which rely on the bulletin for this information. There are others who believe that the publication of disciplinary actions does more harm than good. It was learned that a bill has been introduced in the General Assembly which would place certain restrictions on the publication with reference to those practitioners who have been placed on probation, or had their licenses suspended, because of mental illness or the use of alcohol or drugs.

There followed considerable discussion during which it was brought out that the legal profession publishes its own disciplinary actions in detail and

that even some state medical journals publish detailed proceedings. Questions were raised as to whether such publication acts as an effective deterrent or whether it all comes down to a question of essential public information.

Dr. Kendig stressed the importance of a close working relationship between the Board and Society and urged that an officer of the Society attend each Board meeting. Dr. Wootton assured Council that the Society has, and will continue to be, well represented at Board meetings.

**Parliamentarian**

Dr. Wootton appointed Dr. Fields as official parliamentarian for all Council meetings during 1981.

**VHA Triad Conference**

The Virginia Hospital Association will conduct its annual spring Triad Conference in Williamsburg from April 1-3. The conference is structured especially for hospital trustees, physicians and administrators and has as its objective the promotion of a better understanding of those issues of mutual interest. The Society has served as a co-sponsor for the past three years and has been invited to participate once again. No funding on the part of the Society would be required.

After receiving assurance by those who have attended the conference that it does indeed serve a useful purpose, Council adopted a motion by Dr. Caravati approving co-sponsorship once again.

**Emergency Medical Services Symposium**

The Medical Society of Virginia was one of the organizations which participated in the planning for the first statewide Emergency Medical Services Symposium held in Williamsburg last December. From all accounts, the symposium was quite successful.

It seems likely that the symposium will become an annual event and the Department of Health is anxious to determine whether the Society will continue to participate in planning and support activities. Mr. Osburn stated that although there existed a possibility that some support funds might be required, the chances are quite remote.

A motion by Dr. Cook to once again support and participate in planning for the symposium was seconded and adopted. It was understood, however, that any financial contribution could be made only with Council's approval.

**Continuing Medical Education**

Dr. Nelson reported that response to the CME Questionnaire has been extremely good. The questionnaire has been sent to approximately 11,000 physicians holding Virginia license and 52% have responded. It was learned that the majority of CME courses require tuition fees from $100-500. Travel is also a big item and some members spend $500-1,000 for this purpose. Although many members report that their loss in income is quite minimal, others report that CME cost them over $2,000 per year.

Council was particularly interested in the fact that approximately 52% of the membership never attend Annual Meetings. Most of those state that they find little of interest in the scientific sessions. Even those who do attend fairly regularly show little interest in an expanded CME program.

The questionnaire also revealed that 62% of the respondents favor mandatory CME. Thirty-seven percent thought that it should be required for membership in the Society and the same number favored CME as a requirement for licensure. Forty-four percent favored CME for hospital staff privileges and 43% for membership in specialty societies.

A summary of the study is expected to be published in an early issue of VIRGINIA MEDICAL.

**Society Foundation**

Dr. Wootton stated that he had given a great deal of thought to the advisability and feasibility of establishing a special foundation for the purpose of receiving tax deductible contributions and gifts. A number of societies have such foundations and Dr. Wootton expressed the wish that he be permitted to have Mr. Goolsby draw up the necessary documents for consideration by Council at a subsequent meeting. A motion authorizing Dr. Wootton to proceed was seconded and carried.

**Resident Physicians**

Although The Medical Society of Virginia seems to be making progress with reference to membership for residents, Dr. Wootton feels that there is a better and more effective way of getting these physicians into the mainstream of organized medicine. He believes that a statewide chartered component society for residents should be seriously considered. The Society would be similar in many ways to a student medical society and would be entitled to representation in the House of Delegates. Dr. Wootton went on to say that such a Society would almost surely result in increased membership and bring about a much closer liaison between residents and the state Society.

Dr. Hotchkiss advised that residents as a group had a good record with reference to membership and participation in AMA.

Following considerable discussion during which it

was agreed that an amendment to the Articles would be required for the establishment of a resident component society, it was moved by Dr. Alexander that the matter be referred to the Membership Committee for study and recommendations. Dr. Crowder indicated that his Committee would have a report for Council at its next meeting. The motion was seconded and adopted.

The thought was also expressed that the advisability of permitting student members to hold office and serve on standing committees should also be studied.

**Annual Meeting Format**

Council has been requested to give serious consideration to some modification of the annual meeting format recently agreed upon. A number of members have suggested that the Wednesday portion of the meeting be given over entirely to CME and that the House of Delegates continue to hold its first meeting on Thursday. Those advocating such a change object to adding an additional day as a result of the business sessions. They have no objection to an extra day as long as it is devoted to CME and those who attend do so by choice.

There followed a great amount of discussion during which it was agreed that poor attendance might well be the result of the original plan. It was mentioned, however, that the bylaws specifically state that the House of Delegates shall hold its first session during the first day of the annual meeting. Dr. Weyl stated that the scientific program could begin on Wednesday and that the annual meeting could officially begin on Thursday.

Dr. Caravati then moved that the suggested modification be approved in keeping with Dr. Weyl's recommendation. His motion also recommended that consideration be given to an appropriate amendment of the bylaws. His motion was seconded and adopted.

At this point Mr. DeBolt and Dr. McCune were commended on the fine job they did in obtaining media coverage for the 1980 annual meeting. It was by far the best and most extensive coverage ever.

**Congressional Luncheon**

Mr. DeBolt reported that plans are already being developed for the annual congressional luncheon and suggested that either May 13 or 20 as the best available dates. He recommended that a survey be conducted once again in order that a meaningful agenda could be developed. Our Congressmen were quite impressed last year with the manner in which the meeting was conducted and felt that the various discussions were most worthwhile.

There followed considerable discussion concerning possible advantages of holding a night meeting. It was agreed, however, that the attendance is going to be good either way.

A motion by Dr. Fields to hold a luncheon meeting on May 20 was seconded and adopted.

Mention was made at this point of the fact that Congress will be recessing shortly after May 20 and this could pose some problem as far as attendance is concerned. Mentioned also was the fact that some Councilors will be attending another meeting in Richmond on May 14 and this might pose a problem should the congressional luncheon be switched to May 13. A motion at this point by Dr. Caravati to reconsider was adopted.

After further discussion on the pros and cons of back-to-back meetings, a motion was offered by Dr. Burton to stay with the previously agreed upon May 20 date. His motion was seconded.

An amendment was then proposed by Dr. Hulvey which would change the date of the luncheon to May 13. The amendment was adopted.

**Negotiations**

The chairman of the Negotiations Committee would like very much for two members of that committee to take the primary training course on negotiations as conducted by AMA. Since no funds are budgeted for this purpose, it will be necessary for Council to authorize a special appropriation.

Although it was agreed that the chairman's recommendation had considerable merit, there was some fear that a precedent might be set. The feeling was also expressed that all members of the committee need additional training and that most of them are ready for the advanced course.

Dr. Alexander then moved that the Negotiations Committee look into the advisability of sponsoring such courses as are needed before having members attend programs and training sessions elsewhere. The motion was seconded and carried.

**Search Committee**

Dr. Brown reported that his Search Committee has already met on two occasions and is still in the process of reviewing applications and interviewing candidates for the position of Executive Vice President. Applications have been received from nine well-qualified individuals and the committee hopes to have its final recommendation ready for the President prior to the next meeting of Council.

**Boy Scout Jamboree**

Society representatives have met with officials of

the Boy Scouts of America, State Department of Health and State Board of Medicine for the purpose of submitting plans for the National Jamboree in late July and early August. The Jamboree will be held at Camp A.P. Hill and is expected to attract over 30,000 scouts and visitors from over the nation.

Mr. Osburn reported that July 29, August 2 and 4 are expected to be the busiest dates. Physician volunteers will be needed to assist the regular staffs of some 20 medical substations on the post proper. This raised a question as to how these volunteers might best be obtained, and it was agreed that a meaningful action plan should be devised.

It was moved by Dr. Crowder that the Society cooperate with Jamboree officials and that the staff work with Mr. DeBolt in a coordinated effort to obtain the number of physician volunteers needed. His motion was seconded and adopted.

Mr. Osburn advised that the Jamboree will feature special staff "meal bracelets" and the Society has been requested to contribute $550 for their purchase. The idea behind the bracelets is to require each staff member to obtain a physical examination in order to receive the bracelet. The Society would, in return, receive special credit.

It was the consensus that the providing for such bracelets should properly be a function of the Scout organization. A subsequent motion by Dr. Crowder rejecting the $550 contribution and expressing the wish that the Society's name not be used for any promotional material was seconded and adopted.

**Consumers Health Investment Plan (CHIP)**

Dr. Carmines reported that CHIP was but one of 69 reports and 86 resolutions considered by the AMA House of Delegates during its most recent meeting at San Francisco. He stated that among the major issues considered by the House were the recommended repeal of PSRO and health planning laws, HMOs, the role of women physicians, AMA budgetary needs, etc.

Dr. Carmines went on to state that CHIP is a fairly new concept that has been endorsed and promoted by the Louisiana State Medical Society. It is attracting considerable attention and already has support in various areas of the nation. It is meant to serve as an alternative to those federal programs already proposed and its porponents are confident that it would prove an effective cost containment measure. Specifically, CHIP features first-dollar protection against health care costs along with catastrophic coverage. It also contains a savings feature through which individual participants can realize certain monetary returns—depending upon how the plan is set up.

Although everyone liked the concept, it was agreed that additional information should be sought from the Louisiana Society and those plans already in operation.

A motion by Dr. Fields that the Society take no action at this time was then introduced and seconded. After being amended in such manner as to refer the proposal to the Insurance Committee, the motion was adopted.

**Legislation**

Mr. Goolsby reported that no major problems had surfaced during the current session of the General Assembly and that he was reasonably encouraged by the proceedings thus far.

Mr. Goolsby then discussed the bill introduced by Delegate Joan Jones which would place certain restrictions on the "Board Briefs" published by the State Board of Medicine. He presented five options for Council's consideration and stated that each had something to recommend it. It was generally agreed that Option #3 was probably the most acceptable. This particular option would call for support of the bill with an amendment which would delete reference to a suspended license. It would, in effect, place restrictions only on the publication of disciplinary actions affecting those practitioners placed on probation solely on account of mental illness or the use of intoxicating liquors, narcotics or other drugs.

A motion by Dr. Updike which would have the Society endorse Option #3 was seconded and adopted.

Mr. Goolsby then discussed other matters of special interest. They included Medicaid, a proposed 5% increase in physicians and dentists fees, the defeat of a bill which would have caused the statute of limitations to run from date of discovery, child restraints, etc.

**Professional Liability**

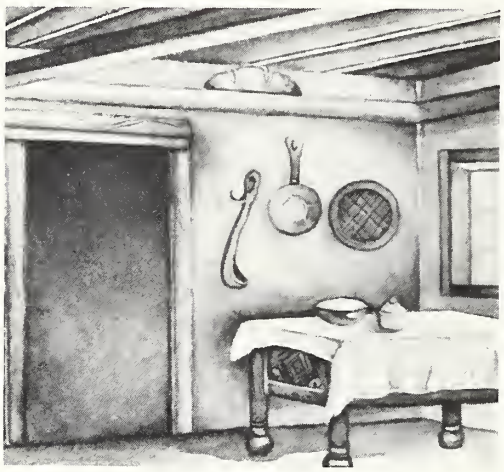
Mr. Goolsby advised Council that representatives of the Society will meet with officers of the St. Paul Company sometime in late February for the purpose of working out a mutually acceptable agreement on such things as investment credits, etc. St. Paul has apparently developed a plan for Virginia which is quite unique. It is hoped that a full report will be ready for Council at its next meeting.

**Medicaid**

Considerable concern has been expressed over the fact that too many Medicaid patients are being treated by others than private practitioners. They are using hospital emergency rooms and other alterna-

# Yesterday's Folk Remedy:

## A rye loaf in the rafters.



Early in this century in Central Europe, almost every farm family kept a loaf of moldy rye bread on one of the kitchen beams. When any family member was cut or bruised, it was an old custom to cut a thin slice from the outside of the loaf, mix it into a paste with water, and apply it to the wound with a bandage. It was believed that no infection would then result from the cut.[1]

# Today's Tradition: Tegopen®

# (cloxacillin sodium)

## for the treatment* of known or suspected staphylococcal infections such as:

- Acute sinusitis
- Furunculosis and carbuncles
- Impetigo
- Secondarily infected dermatitis
- Cellulitis
- Abscesses
- Infected sebaceous cysts

## In serious, deep-seated staph infections, 500 mg q.i.d. dosage is recommended.†

- Tegopen has been reported active against 96% of *Staphylococcus aureus*.[2]
- 80% of *S aureus* has been reported resistant to amoxicillin and ampicillin.‡[2]
- 88% of *S aureus* has been reported resistant to penicillins G and V.‡[2]
- Staph resistance to erythromycin may develop during a course of therapy.[3]

**Available as 500-mg and 250-mg capsules and Oral Solution 125 mg/5 ml.**

# Tegopen® (cloxacillin sodium)
# Today's Penicillin for Today's Physician


1. Florey HW, Chain E, Heatley NG, et al: *Antibiotics*. London, Oxford University Press, 1949, p 2.
2. Bac-Data Bacteriologic Report, Professional Market Research, 1978-1979. The clinical significance of *in vitro* data is unknown.
3. Erythromycin prescribing information (in *Physicians' Desk Reference*, ed 34. Oradell, NJ, Medical Economics Co, 1980) states that staph resistance may develop during treatment.


**See brief summary of prescribing information on an adjoining page.**

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*Note: The choice of Tegopen should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates that the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semisynthetic penicillin.

†In serious, life-threatening infections, oral preparations of the penicillinase-resistant penicillins should not be relied on for initial therapy.

‡Not all isolates may have been tested using both discs.

# Tegopen®
## (cloxacillin sodium)
Capsules and Oral Solution

**Brief Summary of Prescribing Information**

For complete information, consult Official Package Circular.
(12) 9/11/75

**INDICATIONS:**

Although the principal indication for cloxacillin sodium is in the treatment of infections due to penicillinase-producing staphylococci, it may be used to initiate therapy in such patients in whom a staphylococcal infection is suspected. (See Important Note below.)

Bacteriologic studies to determine the causative organisms and their sensitivity to cloxacillin sodium should be performed.

**IMPORTANT NOTE**

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

**CONTRAINDICATIONS:**

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

**WARNING:**

Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

**PRECAUTIONS:**

The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

**ADVERSE REACTIONS:**

Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

**USUAL DOSAGE:**

Adults: 250 mg. q 6h.

Children: 50 mg./Kg./day in equally divided doses q 6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

*N.B.*: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

**SUPPLIED:**

Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100.
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

BRISTOL®
Bristol Laboratories
Division of Bristol-Myers Company
Syracuse, New York 13201


tives. This has increased the cost of the program to a point where some solution must be found.

During the discussion which followed, it was brought out that hospital and nursing home care represent the biggest cost factors in the overall Medicaid program. It was agreed that a great deal of thought will be required before an acceptable solution can be found.

**1983 Annual Meeting**

Council was advised that Marriott Twin Bridges has released the Society from the dates which had been reserved for the 1983 Annual Meeting. Marriott officials were very cooperative and understanding.

In keeping with the expressed wish of Council, the 1983 meeting will be held at The Homestead from November 2-6.

**Vanguard**

Dr. Kuykendall reported that the Vanguard Committee had met the previous evening and that there were several matters he wished to bring to Council's attention. He reviewed the three resolutions which the Virginia delegation had introduced in the AMA House of Delegates and reported that all three had been referred to the Board of Trustees.

He stated that the pilot project conducted in the Northern Virginia area has been very successful. The first phase was concerned with the basic survey and some very interesting findings resulted. It was learned, for example, that a great many people are convinced that most physicians have no interest in

**Errata**

In that portion of the minutes of the House of Delegates referring to Section 13 of Article IX of the Bylaws and published on page 61 of VIRGINIA MEDICAL for January 1981, the following paragraph should be substituted:

*The House concurred with the Reference Committee in its recommendation that the proposed amendment to the first sentence of Section 13 of Article IX of the Bylaws not be adopted. That particular amendment would have increased the terms of Vanguard members from two to three years.*

That portion on the same page having to do with Article XI of the Bylaws should be corrected to read as follows:

*Any member whose license to practice medicine in Virginia has been revoked shall be dropped automatically from membership.*

containing the cost of care. The second phase of the project was concerned with the production and distribution of educational brochures, film clips, etc., designed for public consumption. All material has been designed in such manner that with minor modifications it could be used by other component societies in their respective areas. The third and final phase of the project has been concerned with a followup survey to determine the impact of the various educational materials.

Council was interested in the fact that the cost of the project has been approximately $35,000—somewhat less than anticipated. Approximately 30,000 area residents have been reached and its potential would appear unlimited. By using the material already produced as a base, the project could very likely be sponsored over the State at a cost of from $12,000-15,000.

A motion was then offered by Dr. Crowder which would endorse the concept of a statewide follow-up program and that funds be authorized in an amount not to exceed $15,000. The motion was seconded.

A substitute motion was then offered by Dr. Caravati which called for an appropriate study of the overall project and a final decision by Council as to what followup action would be taken. The substitute motion was seconded and carried.

Dr. Kuykendall reviewed those actions by the AMA House of Delegates favoring repeal of those laws concerned with PSROs and HSAs. After much consideration of the pros and cons of the issue, Dr. Updike moved that the Society recommend to the Reagan administration that a special Presidential Commission be appointed to study and determine the effectiveness of HSAs and PSROs and that a freeze be placed upon their activities until such time as the study has been completed. The motion was seconded and adopted.

It was agreed that this action represented a very positive and responsible approach and should be well received by the administration.

**VaMPAC**

Dr. Weyl had a most encouraging report for Council. VaMPAC's membership is considerably larger than it was a year ago at this time—862 as compared with 376. This is most encouraging and there is every reason to believe that all membership objectives can be met this year. VaMPAC leads in several categories at the national level, and its effectiveness has not gone unnoticed.

Dr. Weyl indicated that VaMPAC needs all possible input into the candidate evaluation process and this should be accomplished by June if at all possible. It will be at that time that VaMPAC must determine just who it will support in the fall elections.

Council was reminded of a reception at Senator Warner's home on April 10 and a reception for members of the "250 Club" at the Governor's Mansion on May 14. Attention was also called to the fact that a very important workshop will be sponsored by AMPAC on September 17-18 at the Mayflower in Washington.

**Auxiliary**

Although Mrs. M. Pinson Neal, president of the Auxiliary, was unable to be present, she submitted a very informative report of Auxiliary activities. The report covered such topics as medical student and/or resident spouse programs, legislative activities, AMA-ERF fund raising, various health projects, etc.

Mrs. Neal indicated in the report that her presidential theme is "Take Time to Care".

Attention was called to the president's newsletter entitled "Flash". It is designed to establish more effective communications with local auxiliaries and will be published on an "as needed" basis.

**Future Meeting of Council**

It was agreed that the next two meetings of Council will be held on Saturday, April 25, and Saturday, September 12.

**Polyscrip Alternatives**

The House of Delegates, during its most recent meeting in Williamsburg, recommended that Council "investigate possible alternatives to the complete prohibition of the use of polyscrips". A motion to refer the matter of the Legislative Committee for study was seconded and adopted.

**Dr. Hotchkiss**

Dr. Hotchkiss thanked Council for the strong support it has given him in his bid for reelection to the AMA Board of Trustees. He indicated that there existed a very definite possibility that the cost associated with the reelection effort might not be as much as previously anticipated.

There being no further business, the meeting was adjourned.

Robert I. Howard, Secretary

APPROVED:

**Percy Wootton, MD, President**

VIRGINIA MEDICAL
EDITORIAL

# The Perils of Prose-Making—and the Pleasures

I SAY without fear of contradiction that the Managing Editor of VIRGINIA MEDICAL is a slave-driving, female Simon Legree. Although I have not had to hop-skip-jump across any ice floes for (from) her, my day is not complete without her daily letter-or rather, directive. "Campell",—she never calls me anything else—"Dr. Thompson and I decided"—that is called spreading the blame—"for you to write one article, two letters and an editorial for next month's VIRGINIA MEDICAL. Make those letters nastier. You received only three threats and one letter bomb after your last letter. Attack motherhood, apple pie, nurses, automobile drivers. Rile them!"

I am worn to a frazzle by all this. My blond, gorgeous locks have fallen to a mighty precious few. My 20/12 eyesight has faded to high myopia. My superb physique has dwindled to 130 pounds of soft bone and sallow skin. My ears ring while my head pounds. My heart skips while my nerves jump. My breath comes in wheezes. But they show no mercy, those two.

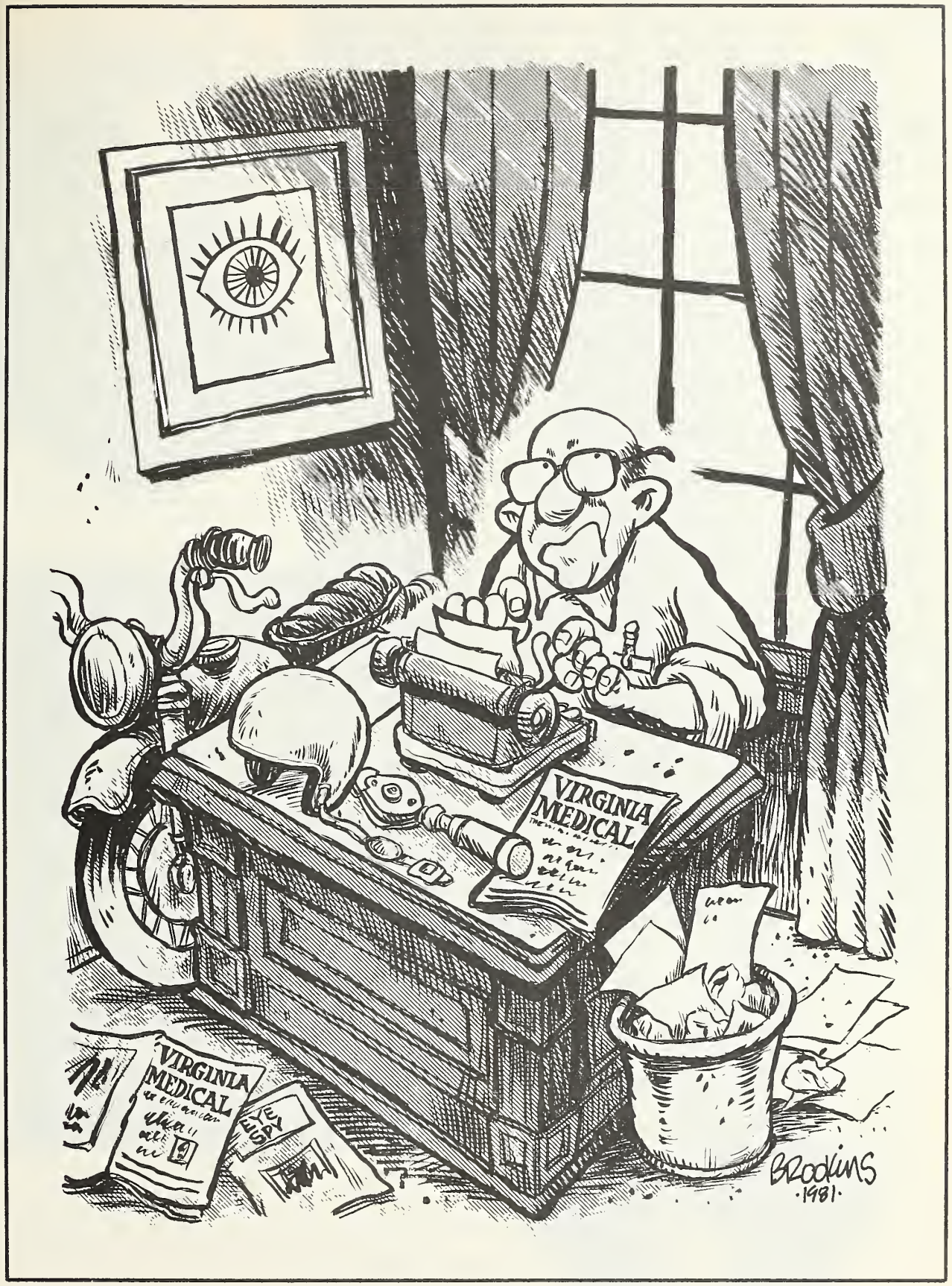
And why bother to write your opinions, to state your position, to take your stand? Is it worth it? You bet it is. Just one or two letters of approval and congratulations make your head two sizes larger. And a single letter of disagreement and attack makes the juices flow freely, which starts the entire process all over again.

My unasked advice is to write. Congratulate the author who has earned it, attack the author who needs it, inform the readership, or whatever. It is not painful. Why, college freshman English was so traumatic to me that I vowed never to take another English course. And I didn't. But with the help of our lovely Managing Editor, Ann Gray, and 103 rewrites and religiously reading Zinsser,[1] I have enjoyed it. And maybe you will, too, if you will just try. Why not start today by writing a letter of congratulations to me.

HENRY S. CAMPELL, MD

Editors' Note: Dr. Campell serves on VIRGINIA MEDICAL's Editorial Board and, as Gary Brookins' cartoon on the opposite page indicates, also pursues ophthalmology and motorcycling. Outspoken and passionate, his writing invariably draws fire. It also draws reprint requests: Permission to reprint his recent editorial in advocacy of motorcycle helmets ("Whose Ox?", Va Med 107:707, 1980) was granted to *American Medical News*, the motorcycling magazine *Road Rider*, and the journal of the American Motorcyclists Association.

1. Zinsser W: On Writing Well. New York, Harper & Row, 1976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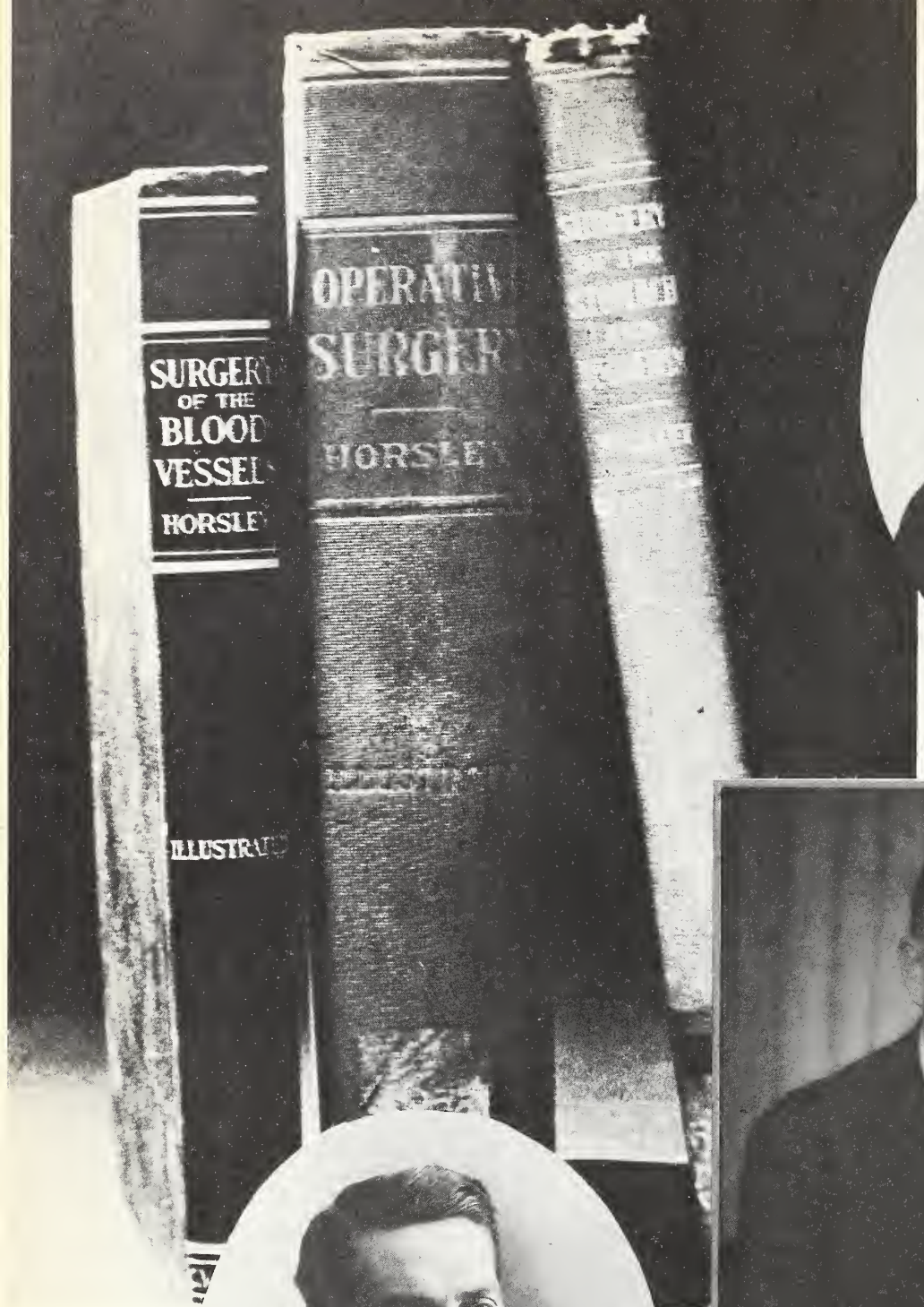


George Ben Johnston, MD

Randolph H. Hoge, MD

Hunter Holmes McGuire, MD

HISTORICAL NOTES

# They Made Surgical History in Virginia

THE first Virginia surgeon in the truly modern sense was William Baynham, born in Caroline County in 1749.[1-3] He studied under the eminent guardian of Thomas Jefferson, Dr. Thomas Walker of Castle Hill, Albemarle County. Baynham then went to London for further training at St. Thomas Hospital, where he had a notable 16-year career in anatomy and surgery. In 1785 he returned to America, settling in Essex County, Virginia, where he continued to practice with distinction until his death in 1814.

On January 14, 1791, William Baynham performed the second successful operation for extrauterine pregnancy in this country, the first such operation having been done by John Bard of New York and reported to London in a letter dated December 25, 1759.[4] Dr. Baynham reported his 1791 case, as well as a second similar, equally successful operation in 1799, in the *Medical and Philosophical Journal and Review* in 1809.[5]

THE first successful caesarean section in this country has usually been credited to John Lambert Richmond of Newtown, Ohio, who operated in 1827. But in the January 1929 issue of the VIRGINIA MEDICAL MONTHLY, the prior claim of Jessee Bennett (1769–1842), practicing in the Valley of Virginia, was advanced by Joseph Lyon Miller, Medical College of Virginia graduate, scholar and book collector.[6]

Dr. Miller relates that on January 14, 1794, Dr. Bennett, whose wife and unborn child were threatened by death in a difficult delivery, improvised a table of two planks laid over two barrels and operated to deliver a living child. He also removed both ovaries to prevent further pregnancy.

Dr. Bennett never reported this operation, primarily, it is said, because the patient was his own wife. The authenticity of the Bennett case has been searchingly scrutinized and has yet to be disproved.[7]

VIRGINIA takes pride in having been the birthplace of Ephraim McDowell, the father of abdominal surgery, even though his greatest acclaim was won in another state. Both he and his now famed patient, Jane Todd Crawford, migrated from Rockingham County to Kentucky, where the legendary ovarian tumor removal took place on Sunday, Christmas day, 1809.[8]

JOHN PETER METTAUER was born in Prince Edward County in 1787. Educated at Prince Edward Academy, Hampden-Sidney College and the University of Pennsylvania Medical School, where he studied under Rush, Shippen, and Wistar, young Mettauer first practiced with his father in Prince Edward and then in Norfolk, during the War of 1812, before returning to Prince Edward in 1827.

He soon became widely known for his brilliant surgical skills and attracted not only an ever-widening circle of patients but also a number of students wishing to "read medicine" under him. These students prompted him to found Prince Edward Medical Institue in 1836, when there were only 12 medical schools in the country and only three in the South. In 1847, this excellent small school affiliated with Randolph Macon College, then located at Boydton, and continued to function as a department of the college until the War Between the States.[9]

In the workshop adjoining his office, Dr. Mettauer continually searched for improved instruments for operations far beyond the usual range of the surgery of his time. He reported on metallic sutures in repair of a laceration of the recto-vaginal area as early as 1833. In August 1838 Mettauer relieved a case of vesico-vaginal fistula by operation using silver wire,[10] and by 1844, he felt that every case of vesico-vaginal fistula could be so cured, claiming that his success justified the statement.

Dr. Mettauer demonstrated astonishing versatility. His work on cleft palate led John Staige Davis[12] and Horton[13] to call him the father of plastic surgery. He pioneered in ophthalmology, especially the removal of cataract, performing some 800 of these operations during his career,[14] this in addition to the impressive list of his general surgical and urological procedures.

Mettauer died in Prince Edward County in 1857 at the age of 88. It is recorded that in the final week of his life he performed three operations: removal of a breast, removal of a stone from the bladder and removal of a cataract. He was buried at Hampden-Sidney College in an extra-long coffin wearing to the last his familiar stovepipe hat.

Excerpted from the presidential address to be delivered by Dr. Old before the Virginia Surgical Society at its annual meeting in Williamsburg on May 1, 1981. References available on request. Abstracts of papers to be presented at that meeting are published elsewhere in this issue.

HUNTER HOLMES MCGUIRE, born in Winchester on October 11, 1835, was the son of Hugh Holmes McGuire, founder of Winchester Medical College. Hunter McGuire first appears in medical history as a leader of the mass exodus of 300 Southern students from Jefferson Medical School, Philadelphia, in 1859, just before the outbreak of the Civil War. McGuire led 145 of these men to the Medical College of Virginia, where he himself matriculated.

Soon after Virginia seceded, he was appointed Medical Director of the Army of the Shenandoah under Gen. Thomas Jonathan "Stonewall" Jackson, whom he thereafter accompanied on all campaigns. When Jackson was wounded at Chancellorsville, Dr. McGuire amputated his arm and remained in attendance until Jackson's death two weeks later.

In 1865, Hunter McGuire returned to Richmond, where he rapidly became the undisputed foremost surgeon in the South. Elected professor of surgery at the Medical College of Virginia in 1865, he later played a leading role in the founding of the rival University College of Medicine. In 1913, these two institutions were merged, largely through the efforts of Dr. McGuire's son, Stuart McGuire, by then himself a leading Richmond surgeon.[16]

Hunter McGuire contributed heavily to surgical progress, especially in urological surgery. He was the first to perform suprapubic cystostomy for incurable urethral obstruction.[17] Eventually, he accepted the germ theory and began to operate under the principles of "Listerism." Throughout his career honors were heaped upon Dr. McGuire. He served as President of The Medical Society of Virginia, the Southern Surgical Association, the American Surgical Association and the American Medical Association.

*On May 5, 1881, in the House of Delegates in Richmond, there occurred the first of three meetings held in Virginia, destined to be important in surgical history. On that day 21 nationally prominent surgeons came together to organize and bring into being the American Surgical Association, brainchild of premier surgeon Samuel David Gross.*[18]

GEORGE BEN JOHNSTON, born in Abingdon in 1853, began surgical practice in Richmond in 1878. In 1879 he performed the first operation under "Listerism" in Virginia. Beyond this introduction of aseptic surgery, which was in itself a noteworthy achievement, Dr. Johnston was a surgeon of varied interests. He was the first in Virginia to advocate cholecystectomy for cholelithiasis. He was also an expert in hepatic abscess, uretero-ureteral anastomosis, wiring of aortic aneurysm and splenectomy.[19]

George Ben Johnston served as President of The Medical Society of Virginia, the Southern Surgical Association, and the American Surgical Association, and before his death in 1916 played a leading role in the founding of five hospitals: Johnston-Willis and Memorial in Richmond, Johnston Memorial in Abingdon, Northampton-Accomack on the Eastern Shore, and Park View in Rocky Mount, North Carolina.

IN Virginia the founding of hospitals should not be discussed without the name of the prominent educator and surgeon, Paul B. Barringer, who is rightly considered the father of the University of Virginia Hospital, which opened on April 17, 1901.[20]

LOVINGSTON, Virginia, was the birthplace in 1870 of John Shelton Horsley, who was graduated from the University of Virginia Medical School in 1892. Although his surgical practice in Richmond was conducted at St. Elizabeth's Hospital, he also served the Medical College of Virginia until his death in 1946.[21]

Dr. Horsley was a tireless worker, always in the forefront of surgical progress. His book, *Surgery of the Blood Vessels,* was published in 1915, only a few years after the Nobel prizewinner of 1910, Alexis Carrel, had laid the foundations of vascular surgery. His other books, *Operative Surgery, Surgery of the Stomach and Duodenum,* and *Surgery of the Stomach and Small Intestine,* were also basic to the surgery libraries of their times. He early recognized the value of accurate medical illustration.

Dr. Horsley is best remembered for the Horsley maneuver to enlarge the duodenum in pyloroplasty.[22] His interest in surgical pathology and cancer led in 1934 to his presidency of the American Association for Study of Neoplastic Diseases.

*The second of the three meetings in Virginia important to surgical history occurred in 1912 during the 25th session of the Southern Surgical and Gynecological Association at Old Point Comfort, with Lomax Gwathmey, leading Norfolk surgeon, in charge of arrangements.*[23] *Franklin H. Martin of Chicago was invited to present incorporation papers for the proposed American College of Surgeons to the Organization Committee at Old Point. Then he, C. H. Mayo, and George W. Crile persuaded J. M. T. Finney, president of the Southern, to be the College's first president.*[24]

SURELY few Virginians have contributed more to scientific surgery than George Paul LaRoque of Richmond (1876–1934). LaRoque wrote 95 papers

on a wide range of topics, such as intestinal obstruction, gynecological surgery, ligation of the abdominal aorta and arteriovenous fistula; but his most lasting monument is his incision for groin hernia surgery.[25] Yet, although he described the operation in 1919, the LaRoque approach for sliding inguinal hernia never gained appropriate recognition until it was popularized years later by Carrington Williams, Sr., of Richmond.[26]

Dr. LaRoque served for many years as clinical professor of surgery at the Medical College of Virginia, where he was a noted bedside teacher of surgery.

OTHER major contributors to Virginia's recent surgical history were known personally by Virginia physicians and surgeons who are active today. Among them no name will bring forth fonder memories than that of Isaac Alexander Bigger, born in South Carolina in 1893. Medical graduate of the University of Virginia in 1919, resident surgeon there under Stephen H. Watts, and then Vanderbilt surgical faculty member under Barney Brooks, he served as chairman of the Department of Surgery at the Medical College of Virginia from 1930 until his death in 1955.[27]

Ike Bigger was interested in and contributed much to vascular, lung cyst and tracheoesophageal fistula surgery; but his most noted papers described his pioneer work on heart wounds.[28] He was president of the American Association for Thoracic Surgery in 1947 and the Southern Surgical Association in 1953.

EDWIN P. LEHMAN was chairman of the Department of Surgery at the University of Virginia from 1928 until his retirement in 1953, one year before his death. He deserves a place in the annals of Virginia surgery not only because of his many scientific achievements but because of his contributions to surgical education, both undergraduate and graduate.[30] His presidential address to the Southern Surgical Association in 1948, "The Surgical Man," should be required reading even today for all surgical residents.[31] Dr. Lehman was particularly interested in cancer and served as president of the American Cancer Society in 1948.

*The third of the three important surgical meetings in Virginia was held at the Commonwealth Club in Richmond on September 29, 1952, when a representative group of Virginia surgeons met at the urging of Randolph H. Hoge, Medical College of Virginia surgeon-gynecologist, to lay the foundations for the Virginia Surgical Society.[32] Dr. Hoge served as president of the Society for its first two years of existence, 1954 and 1955.*

EVERETT IDRIS EVANS will go down in history as Virginia's most outstanding research surgeon. After a PhD in physiology in 1935 and an MD in 1937 from the University of Chicago, he finished clinical and research training and then was appointed to the surgical faculty at the Medical College of Virginia. His interest in fluids, electrolytes and burns eventually combined to lead to the world-wide use of the Evans fluid formula for burn patients.[33]

DAVID MILFORD HUME, acknowledged leader in renal transplantation,[36] came from Boston to head the Medical College of Virginia Department of Surgery in 1956. With his work in transplantation, he did more than anyone else before or since to put that institution on the world map.

Dave Hume's industriousness led to the writing of research papers, clinical papers and book chapters amidst a heavy schedule of clinical and teaching activities. His death occurred in a private airplane crash in 1973 while he was at the height of his remarkable career.

ANOTHER outstanding Virginia surgeon is William Henry Muller, Jr., who is now vice president for Health Affairs at the University of Virginia. Born in 1919 in South Carolina and educated at Duke University Medical School, he joined that outstanding line of surgical residents at Johns Hopkins under master surgeon Alfred Blalock.

Subsequently, while at the University of California Los Angeles, he originated the artery banding operation to create pulmonic stenosis and reduce pulmonary hypertension and excessive pulmonary blood flow. This remains a major addition to the surgery of congenital heart disease.[37]

Harry Muller was named chairman of the University of Virginia Department of Surgery in 1955 and has continued to be a strong surgical scientist, especially in aortic valve surgery, but he has also been president of the Society of University Surgeons, Society for Vascular Surgery, American Surgical Association and Southern Surgical Association. In 1979–1980, he was president of the American College of Surgeons, the only Virginian ever so to serve.

W. LEVI OLD, JR., MD

The pictures on page 272 of Dr. Hunter Holmes McGuire and Dr. George Ben Johnston were kindly furnished by the archives section of Tompkins-McCaw Library, MCV/VCU.

# VIRGINIA MEDICAL OBITUARY

## Ernst Fischer, MD

Dr. Ernst Fischer, former chairman of the Department of Physiology at the Medical College of Virginia, died February 7 in a Richmond Hospital. He was 84.

Originally from Breslau, Germany, Dr. Fischer was graduated from the medical school of the University of Frankfurt and then taught there. When Adolf Hitler dismissed him from his teaching position in 1934 he went first to England and then to Woods Hole, Massachusetts, where he began doing research for the Marine Biological Laboratories. From there he went to the University of Rochester, New York, and then to the Medical College of Virginia, where he taught for more than 30 years, becoming widely known for his research on muscles and energy exchanges. He retired in 1966 but continued to fill short-term teaching appointments, including one at the Imperial Medical School in Tehran, Iran.

A long-time member of The Medical Society of Virginia, Dr. Fischer belonged to many scientific societies and had been a consultant to the National Institutes of Health and a member of the editorial board of the *American Journal of Physical Medicine.*

## J. Frederic Edmonds, MD

Dr. James Frederic Edmonds, Accomac physician for over half a century, died January 1 at the age of 84.

A graduate of the University of Richmond, Dr. Edmonds earned his medical degree from the Medical College of Virginia and then trained at Philadelphia General Hospital. In 1922 he returned to his birthplace, Accomac, to practice as an eye, ear, nose and throat specialist until 1975, when he retired. A member of The Medical Society of Virginia for 58 years and a past president of the Accomack County Medical Society, Dr. Edmonds was also a member of the American Medical Association and Southern Medical Association.

## Mortimer H. Williams, MD

Dr. Mortimer H. Williams, Roanoke eye, ear, nose and throat specialist, died January 31 at the age of 87.

Past president of both the Roanoke Academy of Medicine and the Virginia Society of Ophthalmology and Otolaryngology, Dr. Williams was also a member of The Medical Society of Virginia for more than 57 years. He was graduated from the College of William and Mary, earned his medical degree at the University of Maryland, and trained at the New York Eye and Ear Hospital and the University of Vienna.

## Frank E. LaPrade, MD

Dr. Frank E. LaPrade, a retired Victoria general practitioner, died January 24 at the age of 78.

Dr. LaPrade earned his medical degree from the Medical College of Virginia and received his training in internal medicine at Welch Emergency Hospital in West Virginia, where he also practiced surgery until 1944. He moved back to Virginia and, in 1950, built a clinic in Victoria, where he practiced until he retired in 1964. He was known in the community not only as a doctor but as a member for 25 years of the Victoria Volunteer Fire Department.

A longtime member of The Medical Society of Virginia, Dr. LaPrade was also a member of the American Medical Association and Southside Virginia Medical Society.

## Karl A. Birk, MD

Dr. Karl Alexander Birk, Petersburg, died December 10, 1980, at the age of 66. A psychiatrist, he was educated in medicine at the Medizinische Fakultat der Universitat Rostock, Germany, but trained in this country at Memorial Hospital in New York State and at Virginia's Central State Hospital.

# Memoir of T. A. Moneymaker 1905-1980

Dr. Thomas Andrew Moneymaker, a general practitioner for over 43 years in Arlington and Alexandria, Virginia, died on December 21, 1980, after having endured for many years a rheumatic heart condition.

Dr. Moneymaker came from the small farm region of Brownsburg, Virginia, where he was the only child

to leave the farm life while he himself was barely a young man, to work in the larger town of Raphine, Virginia. Dr. Moneymaker finally managed to save enough money to attend Hampden Sydney College, where he was graduated in 1927. From there he went on to the University of Virginia School of Medicine, where he received his MD in 1933. Dr. Moneymaker was employed in various part-time vocations while attending medical school, in order to finance his tuition and living costs. During this time he worked as a local school teacher and later became the principal. He also worked for Carbide and Carbon as a laboratory assistant.

Before establishing a general practice at his home in Arlington in 1937, Dr. Moneymaker completed his internship at Baltimore City Hospital and his residency at Sibley Memorial Hospital in Washington DC. He also provided his professional services on a volunteer basis to the United States Public Health Service (1937-1943) and was awarded a Distinguished Service Medal by President Franklin D. Roosevelt.

Dr. Moneymaker was a member of the Arlington County Medical Society and various other medical societies throughout the state, including The Medical Society of Virginia. He was a distinguished physician whose outstanding career led him to practice at Arlington Hospital, Alexandria Hospital, National Orthopaedic and Rehabilitation Hospital, Georgetown, George Washington and Doctor's Hospitals in the Washington metropolitan area.

With the passing of Thomas Andrew Moneymaker, MD, the community has lost one of its most outstanding citizens and a void has been created in our midst which will continue for many years to come. However, the fruits of his labor will remain to be enjoyed and remembered by all those who were fortunate enough to have known such a kind and thoughtful person, as well as a skilled and professionally competent physician for 43 years. This humble and sincere man was admired and respected by people of all faiths and in all walks of life. His friendly smile and cordial greeting quickly captivated those with whom he came in contact for the first time, either professionally in his office or if you just happened to catch him late in the afternoon after his office hours trimming one of his favorite rose bushes or azaleas. His inimitable words of comfort will never be forgotten by those he visited in times of sorrow or pain. His compassion and desire to understand what his patients were experiencing was an inspiration to all.

Although he himself was of small stature, there was seemingly no limit to the depth of his heart. He was a student of human nature and his ability to understand and solve the problems of those in distress clearly won for him the undying gratitude of hundreds who have called upon him for his professional integrity and services.

Dr. Moneymaker is survived by his wife, Beatrice A.; four sons, Thomas A., Jr., of Beacon, New York, Richard W., of Albany, New York, John E., of Louisville, Kentucky, and James M., of New York City; two sisters, Elda Hammond of Staunton, Virginia, and Antha Moneymaker of Raphine, Virginia, and four grandchildren.

# Memoir of Hal Davis 1908-1980

*By W. L. Moorman, MD*

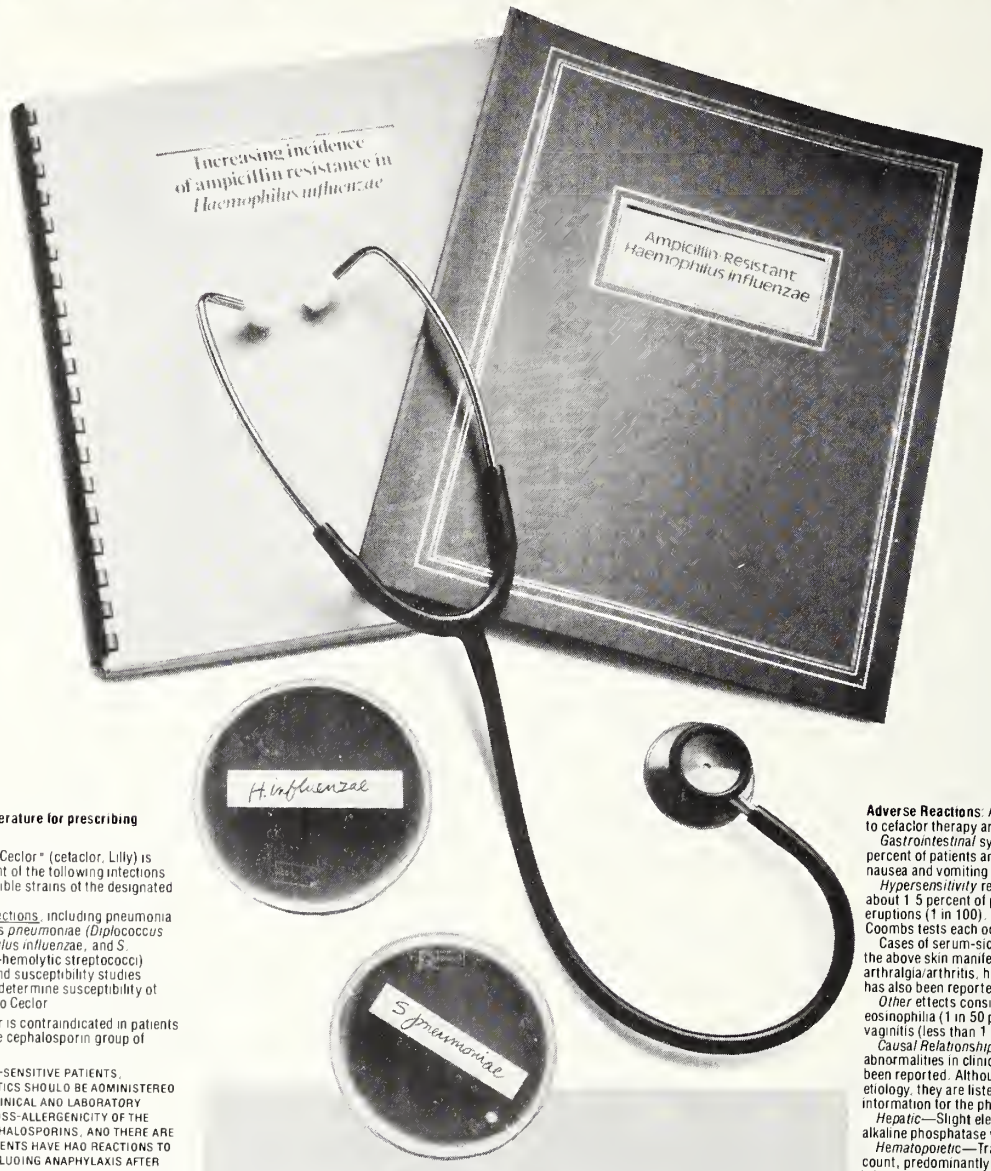
Dr. Hal Davis was the youngest son of Dr. John Gibson Davis. His four older brothers were physicians and surgeons—Dr. Paul Davis, Dr. Fred Davis, Dr. Algeron C. Davis, all of Roanoke, and the late Dr. J. Gibson Davis of Christiansburg, Virginia.

Dr. Hal Davis was born September 23, 1908, and died June 11, 1980. He attended Roanoke College, then was accepted into the freshman class at the Medical College of Virginia. Dr. Davis received scholastic honors and graduated in the Class of Medicine, 1932. He interned at the Lewis-Gale Hospital July 1932 to June 1933. He then joined his brother, Algie, and his father in a general medical practice working out of the senior Dr. Davis' office in Roanoke. In 1938, Dr. Hal Davis went to New York University School of Postgraduate Medicine for training in internal medicine. Following this, he spent three months with Dr. Paul Dudley White in Boston learning the then relatively new science of electrocardiography. He returned to Roanoke and limited his practice to internal medicine until 1942.

That year, Dr. Hal Davis and his brother, Dr. Algie Davis, received notice to report for military service in World War II. After basic medical officer's training and assignment to Bushnell General Hospital in Utah, Dr. Hal Davis completed the requirements for and became certified by the American Board of Internal Medicine. He was then assigned to the 7th Army in the European Theater of Operations entering Europe through Marseille, France. He saw action through the winters of '43 and '44.

Quite singularly, he and his brother, Algie, who had served in the South Pacific, received their discharges and arrived home within a couple of hours of each other in 1945. They reopened their practices

# An added complication... in the treatment of bacterial bronchitis

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Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

**Contraindication**: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

**Warnings**: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

**Precautions**: If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

*Usage in Pregnancy*—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

*Usage in Infancy*—Safety of this product for use in infants less than one month of age has not been established.

**Adverse Reactions**: Adverse effects considered rel to cefaclor therapy are uncommon and are listed be

*Gastrointestinal* symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70) an nausea and vomiting (1 in 90).

*Hypersensitivity* reactions have been reported in about 1.5 percent of patients and include morbilliform eruptions (1 in 100). Pruritus, urticaria, and positiv Coombs tests each occur in less than 1 in 200 patie

Cases of serum-sickness-like reactions, including the above skin manifestations, fever, and arthralgia/arthritis, have been reported. Anaphylaxi has also been reported.

*Other* effects considered related to therapy includ eosinophilia (1 in 50 patients) and genital pruritus o vaginitis (less than 1 in 100 patients).

*Causal Relationship Uncertain*—Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

*Hepatic*—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

*Hematopoietic*—Transient fluctuations in leukocy count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

*Renal*—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[1030

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

*Note*: Ceclor* (cefaclor) is contraindicated in patien with known allergy to the cephalosporins and shoul be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatm and prevention of streptococcal infections, includin the prophylaxis of rheumatic fever. See prescribing information.

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*Additional information availabl the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.*

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from offices on the top floor of the Shenandoah Life Insurance building. Later, the practice was moved to the Jefferson Apartment building and then to the Carlton Terrace building.

Dr. Hal Davis continued in active practice until his retirement in 1956. He was a member of the Roanoke Academy of Medicine and The Medical Society of Virginia, a diplomate of the American Board of Internal Medicine and a fellow of the American College of Physicians. His wife survives him. She is the former Miss Frances Willis from an outstanding Roanoke family. They had four daughters and eight grandchildren.

Dr. Hal Davis was of fairly short stature but was a tall man in his warm, friendly conviviality.

Prepared and published at the request of the Roanoke Academy of Medicine.

# Memoir of Henry Lee 1907-1980

*By Harry J. Warthen, Jr., MD*

Dr. Henry Lee of Rocky Mount and Roanoke died on the 23rd of December following a protracted illness. A moving memorial service on January 14 evidenced the affection and esteem in which he was held by his associates, friends and patients. But Dr. Lee was remarkable in many ways. Some of these facets were not touched upon in the memorial service.

He was often called "Light-horse Harry" Lee. The agnomen was deserved, for he was, in fact, a great-grandson of the Revolutionary War hero, and he was named for the general. One is reminded of the short history of our country and the relatively long life spans and intervals between generations of some of our Virginia families when one considers that Dr. Lee was separated by only two individuals from one of George Washington's most trusted lieutenants.

Henry Lee was born in 1907. His father, Judge John Penn Lee was born in 1867, and his grandfather, Charles Carter Lee, was born in 1798. Charles Carter was Robert E. Lee's oldest full brother, and it was to his home in Powhatan County that the general repaired the second night after leaving Appomattox on his return to Richmond.

Harry recalled and could relate much of the Lee family history. Douglas S. Freeman, General Lee's definitive biographer, evidently was not aware of a family tradition that the general, in his innermost thoughts, felt he had "failed the South," and "he had grieved himself to death."

But Harry was not one to dwell in the past. He lived in the 20th century. He was a graduate of Washington and Lee University and received his medical degree from Johns Hopkins University well before his 23rd birthday. He was one of Hopkins' youngest medical graduates. After a surgical internship at Hopkins Hospital he entered the residency program at the University of Cincinnati, which he completed in 1936. He then returned to Virginia and began the practice of surgery with the enthusiasm and intensity with which he approached every aspect of life.

World War II found him with a University of Cincinnati medical unit. He participated in the Battle of the Bulge and returned to his home in late 1945 as a lieutenant colonel.

Within a relatively short time he enjoyed what must have been the largest individual surgical practice in the state. For many years his daily hospital census varied from 35 to 40 patients. At times the total number exceeded 60 in the hospitals at Roanoke and Rocky Mount, as he shuttled back and forth during the course of busy days. He found his chief recreation in operating a large and productive dairy farm in Franklin County.

It was Harry's good fortune to find a most efficient secretary, and the amount of work he and Miss Ethel Holland accomplished was prodigious. But the tireless pace he set was not compatible with longevity and nature took its toll. In 1974 he suffered the first of a series of strokes, but he continued to do office work until he untimately was confined to a wheel chair.

He was indeed a most remarkable man, and we shall not see his like again.

# VIRGINIA MEDICAL CLASSIFIED

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# In State Survey, Most Members Vote for Mandatory CME

SUPPORT for continuing medical education in general and mandatory CME in particular was registered by Medical Society of Virginia members who responded to a recent survey on the subject.

Believed to be the first statewide poll of CME experience, the survey was commissioned in mid-1980 by The Medical Society of Virginia's Executive Committee headed by George M. Nipe, MD, then President, at the request of Kinloch Nelson, MD, director of continuing medical education for the Society. It was designed and conducted by Paul Mazmanian, PhD, assistant director of continuing education at the Medical College of Virginia, who also assembled the data for the article on page 348. (And for a description of a new topic in medical student education, see page 355.)

Heart of the survey was a 64-item questionnaire probing what, where, how and how much CME. It went out late last fall to every physician in Virginia, including 6,036 members of The Medical Society of Virginia. Of these members, 3,966 (65%) filled out and returned the forms, a response rate indicating that the ongoing education of the practicing physician, much discussed in recent years, continues to compel the attention of Virginia doctors.

Michigan Medicine

What do these doctors study? Typically, the questionnaires reveal, they read in the literature four to six hours a week and spend up to three hours a week in clinical conferences and in consultation with other physicians. The preferred reading is medical books and journals, says the survey, and the preferred programs are those offered by medical schools and the scientific meetings of societies. Most of the respondents say the quality of available programs is no deterrent to their attendance, but lack of relevance is. They want their learning to relate specifically to their specialties.

Time is a major factor in CME participation, say the respondents, even though the majority report that coverage for their practices presents no problem. How much time away from his practice does the Medical Society of Virginia member allot each year to the pursuit of learning? In 1979, six to 15 days away from his work, say 60% of the answering doctors. Did this include a lot of travel time? Not likely. Travel programs are not highly regarded, the poll indicates, and most respondents say they find sufficient learning opportunities close to home. Yet a majority also report that they earn less than half their credits in a setting most of them frequent, the hospital.

Cost may be time's colleague in deterring continuing medical education, according to the survey. Counting tuition charges, other fees, transportation and lost income, the Medical Society of Virginia member in one year, 1979, averaged $3,000 on continuing medical education, the poll shows. That's a hefty sum, and many of the respondents complain that the CME tab is ex-

cessive, although most consider it reasonable.

Should someone else pay the tuition and fees often levied for scientific programs? No indeed, say most of the responding physicians, we should pay them. It's nice, they add, for hospitals, medical schools, pharmaceutical companies and private foundations to help in the funding, but perish the thought that insurance companies or state or federal governments should be allowed to contribute.

Almost two-thirds of the MSV members who returned the questionnaire favor mandatory continuing medical education of one kind or another. Of this clear majority, seven out of ten think CME should be obligatory for hospital staff privileges and for membership in specialty societies; five out of ten favor mandatory learning for state society membership, as is now the case with their own Medical Society of Virginia; and 50% believe CME credits should be made a condition for Virginia relicensure, as in some other states.

## *From One President to Another*

"The President shares your concerns about excessive and imprudent federal regulations, and he has taken steps that he believes will begin the process of controlling the regulatory apparatus. He thanks you for your thoughtful message."

So wrote the director of White House correspondence, Anne Higgins, in response to MSV President Percy Wootton's recent letter asking for a moratorium on new Health and

## When you help a Boy Scout, there's no guarantee he'll grow up to be a Doctor.

## But you never know.

Melissa Grimes

SCOUT RONALD N. KROLL did grow up to be a doctor, a nephrologist, to be exact, and as the picture at right testifies, he's still Scouting as leader of Troop 869, Salibury Presbyterian Church, Midlothian, Virginia.

And Dr. Kroll was one of the first Medical Society of Virginia members to volunteer to help thousands of Scouts who will gather this summer for their national Jamboree at Fort A. P. Hill near Bowling Green, Virginia. On three days of the Jamboree—July 29, August 2 and August 4—a crowd of 100,000 persons is expected, and for each of those three days 20 physicians are needed to stand by for emergency care. You don't have to have Boy Scout credentials, as does Dr. Kroll, but you do have to be a doctor.

Find a way to fit this rewarding experience into your schedule, then fill out and send to MSV headquarters the coupon below. You will receive an information packet of what and where, and Scout officials will be on the watch to welcome and guide you.

An Eagle Scout, Dr. Kroll began Scouting in 1952 and has held a Scout card every year since, including the two years he was in the Army. His son Bryan is in his troop and recently made 1st Class Scout, and his daughter Lisa is a Girl Scout.

I volunteer to help the Boy Scouts at their Jamboree at Fort A. P. Hill on

☐ July 29 ☐ August 2 ☐ August 4.

*Clip this coupon to a letterhead with your name and address and mail to Will Osburn, 4205 Dover Rd., Richmond VA 23221.*

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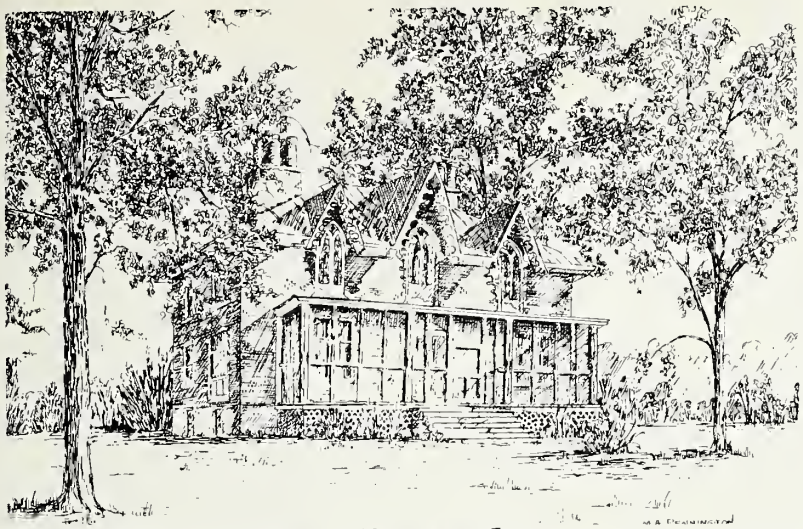

***Dr. Hall's House Honored:*** Perry Hill, the Buckingham County house shown above, has been placed on the Virginia Landmarks Register and nominated to the National Register of Historic Places. Built in 1862 by Thomas Moseley Bondurant and still in family hands, the house was a gift to Bondurant's daughter, Angelina, and her husband, Dr. William Paxton Hall, who practiced medicine in Buckingham County for 50 years. This drawing by M. A. Pennington, MD, appeared in the June 1979 issue of VIRGINIA MEDICAL.

Human Services regulations and funding, and the formation of an inter-departmental task force to evaluate present federal health policies.

The White House letter noted that a presidential memorandum on January 29 froze most federal regulations for a period of 60 days and pointed out that President Reagan had also established a Task Force on Regulatory Relief, under the direction of the Vice President, George Bush, to "develop methods of improving executive branch oversight of the regulatory process."

Next step, says Dr. Wootton: Write to Vice President Bush.

## *In Virginia, Help for Nation's Deaf*

Persons who can't hear or speak can now be helped through a medical emergency via a new, nationwide service at the University of Virginia Medical Center. Using the teletypewriters and telecommunications devices that are available to about 75,000 persons over the country, including 1,000 in Virginia, deaf or mute persons may call the National Crisis Center for the Deaf at any hour of the day or night, and a member of the staff trained to respond will give instructions for coping with the emergency or will organize help from police units or rescue squads in the caller's area.

The Center began operating early this year under the leadership of three University of Virginia physicians: Dr. Richard F. Edlich, director, emergency medical services; Dr. Daniel A. Spyker, co-director, Blue Ridge Poison Center; and Dr. Wilford W. Spradlin, chairman, department of behavioral medicine and psychiatry.

For deaf Virginians, the Center's toll-free number is 1-800-552-3723. For those who can hear, the number is (804) 924-4308.

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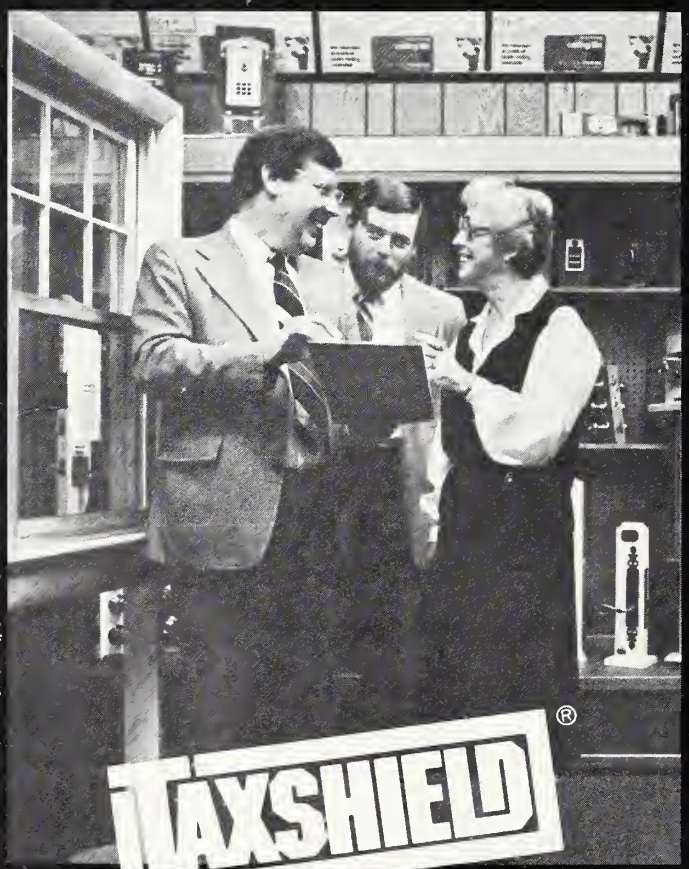


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# LETTERS TO THE EDITOR

## Suspects Association of Oil Heaters, Hemoptysis

Oil heaters have been associated with significant respiratory tract problems in my practice. Perhaps relating four pertinent cases will be of some value. With our present energy crisis and economic depression, I suspect that such problems will become more common and should be considered when hemoptysis and other significant signs of respiratory tract disease come to our attention.

HWH, a 50-year-old white female, was seen at home in April 1955 with hemoptysis of >100 cc of blood. The home heating system was not suspected as a contributing factor. The patient gave a history of pneumonia with hemoptysis in 1951. Workup at that time included bronchoscopy, which did not reveal the source of bleeding. The diagnosis was chronic bronchitis. The hemoptysis gradually decreased with conservative care. In November 1956, the patient was again seen at home with hemoptysis. She was using an old style kerosene room heater with no vent except to the room air. This source of heat was discontinued and the hemoptysis promptly stopped. The patient was seen again in July 1964 with hemoptysis. She had been exposed out-of-doors to burning fuel oil. There was no further fuel oil exposure and the hemoptysis stopped. In April 1965, there was an episode of hemoptysis with bronchitis following "flu". This hemoptysis stopped with conservative measures. No history of exposure to heating oil was obtained at that visit. Hemoptysis has not recurred, and the patient was in reasonably good health when last seen in March 1980.

IBS, a 50-year-old white male, was seen with hemoptysis of <100 cc of blood in October 1975. The patient was a farmer who used various herbicides and pesticides. He smoked and had worked as a coal miner. Chest x-ray was not remarkable. Workup at a medical center included bronchoscopy but failed to reveal the source of the bleeding. He stopped smoking in 1977. Hemoptysis recurred in May 1978. Chest x-ray revealed no change from that of October 1975. Hemoptysis recurred in December 1980. Chest x-ray revealed changes consistent with left lower lobe pneumonia. Questioning revealed that the oil heater at home had a suspiciously defective vent. The stove pipe was, indeed, quite defective. The pipe was replaced, and the hemoptysis stopped promptly. Efforts to get sputum for cytology and acid fact studies were not successful. The chest x-ray returned to normal, and the patient returned to his usual farm duties.

TLO, a 28-year-old white female, was seen in January 1966 with hemoptysis. Treatment for bronchitis was begun. Improvement was equivocal until April, although hemoptysis occurred only one night. In October 1966 hemoptysis recurred. Inquiry revealed that an oil heater was the source of home heat. This heat source was eliminated, and an alternate one put to use. Hemoptysis stopped and had not recurred through January 1981.

RLM, a 30-year-old white male was using an oil heater in 1966. He had hemoptysis of >100 cc of blood. The oil heater was suspected as the cause. It was discontinued. The bleeding was not investigated and has not recurred. The patient is in good health at this time.

**Everett L. Coffey, MD**

PO Box 297
Buchanan VA 24066

## How to Make a Medical Report for Workmen's Compensation

Treatment of the industrially injuried patient will, without exception, produce a request from the patient, his employer, his workmen's compensation insurance carrier, or the State Industrial Commission for the production of a medical report. The treating physician is seldom advised as to what specific information is being sought and is left to his own imagination in answering the request.

The purpose of this letter is to assist the physician in providing only the pertinent information needed in the least possible time.

Virginia Code Section 65.1-88 provides that at the time of injury, the employee is to be provided with the names of three physicians from whom he may select the treating physician. The employer is responsible for the cost of medical treatment rendered by

that physician, as well as that by any other physician or hospital to whom the claimant is referred.

Code Section 65.1-88.1 imposes a statutory burden upon the physicians to provide reports upon request by any interested party. Please note that a medical authorization is not necessary, as this Section establishes the rights of the parties to receive medical reports without permission of the claimant. The right of the industrially injured to prompt and adequate medical treatment and the right of all parties in interest to be advised of the nature and duration of the treatment is, therefore, established by statute.

Specifically then, what information are the parties seeking when they request a medical report? The basic information needed is the history of injury related by the claimant, the diagnosis of his physical condition, his disability, if any, to engage in his regular employment, and any appropriate comment regarding permanent disability, or the necessity for vocational rehabilitation. Brevity in medical reports is encouraged. The parties need only this basic information to determine if the claimant was injured on the job and, if so, the nature and extent of his injuries, whether or not he is disabled and, if so, the probable length of disability. In this regard we commend to you the use of the Attending Physician's Report. Copies are available from the Industrial Commission upon request and without charge.

A final word regarding charges for reports is perhaps in order. The physician is entitled to a reasonable charge for the furnishing of medical reports which are prepared in his office. However, the reasonableness of the charge may be the subject of a hearing before the Industrial Commission. There are no guidelines in existence to determine the appropriateness of a charge other than the standard within the community. However, as a general rule of thumb, there is usually no charge for the completion of the Attending Physician's Report and charges of $20.00 or less for a narrative report are seldom questioned.

Finally, if you have any questions regarding the request for a medical report, matters which should be contained in it, or an appropriate charge, you may contact the Industrial Commission, at PO Box 1794, Richmond VA 23214, (804) 786-3618. One of the claims examiners will be happy to advise you.

Robert P. Joyner, Chairman,
Industrial Commission of Virginia

**Editors' Note:** Copies of the two statutes Judge Joyner refers to, Virginia Code Sections 65.1-88 and 65.1-88.1, are available on request.


Since 1916, Saint Albans Psychiatric Hospital has been building on a tradition of quality care for adults and adolescents. A private, nonprofit hospital, Saint Albans is dedicated to meeting the unique needs of each patient.

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ROLFE B. FINN, M.D. Medical Director

ROBERT L. TERRELL, JR. Administrator

**Saint Albans Psychiatric Hospital**

P.O. Box 3608 Radford, Virginia 24141

ROCHE

# DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]

## Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

## but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

## A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.[5] Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

**References: 1.** Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine*, ed. Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35*:1359-1365, 1978. **3.** Clagharn J: The anxiety-depression syndrome. *Psychosomatics 11*:438-441, 1970. **4.** The Task Force on Late Neuralagical Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry 137*:1163-1172, 1980. **5.** Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61*:217-225, 1979.

Anxiety Scores

50

## In moderate depression and anxiety

# Limbitrol® IV

**Tablets 5-12.5** each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)
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## Relief without a phenothiazine

**Please see summary of product information on next page.**

**LIMBITROL® TABLETS Tranquilizer–Antidepressant**
**Before prescribing, please consult complete product information, o summary of which follows:**
**Indicotions:** Relief of moderote to severe depression associated with moderote to severe anxiety.
**Contraindications:** Known hypersensitivity to benzodiazepines or tricyclic antidepressonts. Do not use with monoomine oxidose (MAO) inhibitors or within 14 days following discontinuotion of MAO inhibitors since hyperpyretic crises, severe convulsions and deoths have occurred with concomitont use, then initiote cautiously, gradually increasing dosoge until optimal response is achieved. Controindicoted during acute recovery phase following myocardial infarction.
**Wornings:** Use with great core in patients with history of urinory retention or ongle-closure glaucoma. Severe constipotion may occur in patients toking tricyclic antidepressants and antichalinergic-type drugs. Closely supervise cardiovascular patients (Arrhythmias, sinus tachycardia and prolongotion of conduction time reported with use of tricyclic antidepressonts, especially high doses. Myocordiol infarction ond stroke reported with use of this class of drugs.) Coution patients obout possible combined effects with alcohol and other CNS depressonts and against hozardous occupations requiring complete mental olertness (e.g., operoting mochinery, driving).
***Usage in Pregnancy:*** **Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiozepoxide have been reported rorely, use coution in administering Limbitrol to oddiction-prone individuals or those who might increose dosoge; withdrowol symptoms following discontinuotion of either component olone have been reported (nouseo, heodoche and moloise for omitriptyline; symptoms [including convulsions] similor to those of barbiturote withdrowol for chlordiozepoxide).
**Precoutions:** Use with coution in potients with o history of seizures, in hyperthyroid potients or those on thyroid medicotion, ond in potients with impoired renol or hepotic function. Because of the possibility of suicide in depressed potients, do not permit eosy occess to lorge quontities in these potients. Periodic liver function tests ond blood counts ore recommended during prolonged treotment. Amitriptyline component may block oction of guonethidine or similor ontihypertensives. Concomitont use with other psychotropic drugs hos not been evoluoted: sedotive effects moy be additive. Discontinue several doys before surgery. Limit concomitont odministrotion of ECT to essentiol treotment. See Wornings for precoutions obout pregnoncy. Limbitrol should not be token during the nursing period. Not recommended in children under 12.
In the elderly ond debilitoted, limit to smollest effective dosoge to preclude otoxio, oversedotion, confusion or ontichalinergic effects.
**Adverse Reoctions:** Most frequently reported ore those ossocioted with either component olone: drowsiness, dry mouth, constipotion, blurred vision, dizziness ond blooting. Less frequently occurring reoctions include vivid dreoms, impotence, tremor, confusion ond nosol congestion. Mony depressive symptoms including onorexio, fotigue, weokness, restlessness ond lethorgy hove been reported os side effects of both Limbitrol ond omitriptyline. Gronulocytopenio, joundice ond hepotic dysfunction hove been observed rorely.
The following list includes odverse reoctions not reported with Limbitrol but requiring considerotion becouse they hove been reported with one or both components or closely related drugs:
*Cardiovoscular:* Hypotension, hypertension, tochycordio, polpitotions, myocordiol infarction, orrhythmios, heort block, stroke.
*Psychiotric:* Euphorio, opprehension, poor concentrotion, delusions, hollucinotions, hypomonio ond increosed or decreosed libido.
*Neurologic:* Incoordinotion, otoxio, numbness, tingling ond poresthesios of the extremities, extrapyromidol symptoms, syncope, changes in EEG potterns.
*Antichalinergic:* Disturbonce of occommodotion, porolytic ileus, urinory retention, dilototion of urinory tract.
*Allergic:* Skin rosh, urticorio, photosensitizotion, edemo of foce ond tongue, pruritus.
*Hemotologic:* Bone morrow depression including ogronulocytosis, eosinophilio, purpuro, thrombocytopenio.
*Gostrointestinol:* Nouseo, epigostric distress, vomiting, onorexio, stomotitis, peculior toste, diorrhea, block tongue.
*Endocrine.* Testicular swelling ond gynecomostio in the mole, breost enlorgement, golactorrheo ond minor menstruol irregulorities in the female ond elevotion ond lowering of blood sugor levels.
*Other:* Heodoche, weight goin or loss, increased perspirotion, urinory frequency, mydriosis, jaundice, olopecio, porotid swelling.
**Overdosoge:** Immediotely hospitolize potient suspected of hoving token an overdose. Treotment is symptomotic ond supportive. I.V. odministrotion of 1 to 3 mg physostigmine salicylote hos been reported to reverse the symptoms of omitriptyline poisoning. See complete product informotion for monifestotion ond treotment.
**Dosoge:** Individualize according to symptom severity ond potient response. Reduce to smollest effective dosoge when satisfoctory response is obtained. Lorger portion of doily dose moy be token ot bedtime. Single *h.s.* dose may suffice for some potients. Lower dosoges are recommended for the elderly. Limbitrol 10-25, initiol dosoge of three to four toblets doily in divided doses, increosed to six toblets or decreased to two tablets doily os required. Limbitrol 5-12.5, initiol dosoge of three to four tablets daily in divided doses, for patients who do not tolerote higher doses.
**How Supplied:** White, film-coated tablets, eoch containing 10 mg chlordiozepoxide ond 25 mg omitriptyline (os the hydrochloride salt) ond blue, film-coated toblets, eoch containing 5 mg chlordiozepoxide ond 12.5 mg omitriptyline (os the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® pockoges of 100, ovoilable in trays of 4 reverse-numbered boxes of 25, ond in boxes containing 10 strips of 10; Prescription Paks of 50.

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**PATTEN/FARMERS** continued from page 341.

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**MAZMANIAN/CME** continued from page 350.

source of funding for CME. Most members suggested that hospitals, medical schools, pharmaceutical companies, and private foundations should help to fund continuing medical education.

Nearly two of every three members (63%) favored a continuing medical education requirement. Of the 63% who favored a requirement, seven of every ten favored mandatory CME for hospital staff privileges and membership in specialty societies. Over half favored mandatory CME for membership in the state medical society and for periodic registration of license.

About half indicated that if evaluation were required for reregistration of license, it should include participation in continuing medical education. Some stated that practice audit and specialty board certification should be requirements for reregistration. Fewer members felt that examinations should be required.

The authors thank Dr. John Fauser, of the American Medical Association's Department of Allied Health Education and Accreditation, and Dr. Jackson Riddle, of the AMA Division of Educational Policy and Development, for their help.

# MEETINGS ABOUT MEDICINE

**May 27-29**
**Current Trends in Respiratory Care 1981** (Virginia Society of the American Association for Respiratory Therapy), *Virginia Beach.* Paul McCabe, (804) 359-6961.

**May 27-29**
**Spring Continuing Medical Education Conference** (Virginia State Department of Health), *Charlottesville.* 12 hrs. Cat. 1 credit. Bureau of Staff Development, James Madison Bldg., 109 Governor St., Richmond VA 23219, (804) 786-3165.

**June 3-5**
**Update in Ob-Gyn** (University of Kentucky), *Lexington.* Cat. 1 credit. Frank R. Lemon, MD, University of Kentucky, College of Medicine, Lexington KY 40536, (606) 233-5161.

**June 4-5**
**Realtime Ultrasound** (John Hopkins University), *Baltimore.* Cat. 1 credit. Fee: $200. Janet B. Hardy, Office of Continuing Education, Turner Auditorium Bldg., 720 Rutland Ave., Baltimore MD 21205.

**June 4-6**
**5th Annual Conference in the Rehabilitation of the Brain-Injured Adult** (Medical College of Virginia), *Williamsburg.* Fee: $200. Kathleen Suffredini, Box 677, MCV Station, Richmond VA 23298, (804) 786-9248.

**June 5-6**
**Advanced Aspects of Surgical Stapling** (University of Maryland), *Baltimore.* Betty B. Saar, Room 300 MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**June 5-6**
**Geriatrics II—Sexuality and the Aging** (East Tennessee State University, Mountain Home Veteran's Administration), *Johnson City, Tennessee.* 9 hrs. credit. Fee: $70. Shirley Bogart, Program Coordinator, Continuing Medical Education, (615) 928-6426, ext. 204.

**June 10-13**
**5th Annual Fitz-Hugh Symposium—Pediatric Otolaryngology** (University of Virginia), *Charlottesville.* Continuing Medical Education, University of Virginia, Box 368, Charlottesville VA 22908, (804) 924-5318.

**June 17-19**
**The Patient with Arrhythmia—A Clinical Approach** (Georgetown University, Washington Veteran's Administration Hospital), *Washington DC.* Registrar, American College of Cardiology, 911 Old Georgetown Rd., Bethesda MD 20014.

**June 17-19**
**Emergency Medical Services: Responsibility and Accountability in the '80s** (American Society of Law and Medicine), *Boston, Massachusetts.* Fee: $250-285. American Society of Law and Medicine, 520 Commonwealth Ave., Suite 211, Boston MA 02215, (617) 262-4990.

**June 18-21**
**Annual Session of the Seaboard Medical Association of Virginia and North Carolina,** Holiday Inn, *Kill Devil Hills, North Carolina.* Mrs. Annette S. Boutwell, PO Box 10387, Raleigh NC 27605, (919) 821-2226.

**June 18-19**
**Geriatric Psychiatry** (University of Maryland), *Baltimore.*


**Second Annual Oculo-Plastic Symposium**

**Sponsored by Eastern Virginia Medical School and Naval Regional Medical Center**

**June 18-20 at the Sheraton Inn, Virginia Beach**

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**June 19-21**
**American Association for the Study of Headaches,** *Washington DC.* S. Diamond, MD, 5252 N. Western Ave., Chicago IL 60625.

**June 21-26**
**Eastern Shore Medical Symposium** (University of Delaware, Jefferson Medical College, Medical Society of Delaware) *Rehoboth Beach, Delaware.* Sylvia Brocka, Wilcastle Center, University of Delaware, 2800 Pennsylvania Ave., Wilmington DE 19806, (302) 738-8155.

**June 22-26**
**Advanced Practicum—Ultrasound** (Johns Hopkins University), *Baltimore, Maryland.* Fee: $400. Janet B. Hardy, CME Office, 720 Rutland Ave., Baltimore MD 21205.

**June 25-27**
**Dermatology Days** (University of Maryland), *Ocean City, Maryland.* Betty B. Saar, Program of Continuing Education, University of Maryland, Room 300 MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**June 25-27 and July 23-25**
**Eastern Virginia Medical School Summer Conference at Virginia Beach—Internal Medicine.** James P. Baker, MD, PO Box 1980, Norfolk VA 23501, (804) 628-3584.

**June 28-July 3**
**7th Annual Family Review Course** (University of Maryland), *Ocean City, Maryland.* Betty B. Saar, Program of Continuing Education, University of Maryland, Room 300 MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**July 18**
**Basic Science Review, III; Psycho-Pharmacology** (East Tennessee State University), *Johnson City, Tennessee.* 7 hrs. Cat 1 credit. Fee: $50. Shirley Bogart, (615) 928-6426, ext. 204.

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Four one-week courses in medical radiation safety will be offered in June by the University of Virginia's Radiological Physics Division. The schedule:

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These courses are intended for x-ray technologists, medical and health physicists, radiology residents and individuals desirous of starting a career in health physics with no previous experience in health physics. Participants may take any one of the courses independently or any combination of the four courses. Tuition fee is $105 plus $50 material fee for each course. For further information contact Suresh K. Agarwal, PhD, Box 375, University of Virginia Medical Center, Charlottesville VA 22908.

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| | | |
|---|---|---|
| July 6-10 | Emergency Medicine | 25 hrs. |
| July 13-17 | Pediatrics | 16 hrs. |
| July 14-17 | Surgical Techniques | 15 hrs. |
| July 19-31 | Maine Orthopedic Review | 60 hrs. |
| July 21-24 | Dermatology for the Non-Dermatologist | 16 hrs. |
| July 26-30 | Neurosurgical Techniques | 21 hrs. |
| July 27-30 | Epilepsy Symposium | 18 hrs. |
| August 2-6 | Otolaryngology | 18 hrs. |
| August 3-7 | Obstetrics & Gynecology | 18 hrs. |
| August 3-7 | Anesthesiology Update | 16 hrs. |
| August 9-13 | Ophthalmology | 18 hrs. |
| August 16-20 | Nuclear Medicine | 23 hrs. |
| August 23-26 | Forensic Medicine | 23 hrs. |
| August 23-26 | Pulmonary Disease | 18 hrs. |


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**IMPORTANT NOTE**

When it is judged necessary that treatment be initiated before definitive culture and sensitivity results are known, the choice of cloxacillin sodium should take into consideration the fact that it has been shown to be effective only in the treatment of infections caused by pneumococci, Group A beta-hemolytic streptococci, and penicillin G-resistant and penicillin G-sensitive staphylococci. If the bacteriology report later indicates the infection is due to an organism other than a penicillin G-resistant staphylococcus sensitive to cloxacillin sodium, the physician is advised to continue therapy with a drug other than cloxacillin sodium or any other penicillinase-resistant semi-synthetic penicillin.

Recent studies have reported that the percentage of staphylococcal isolates resistant to penicillin G outside the hospital is increasing, approximating the high percentage of resistant staphylococcal isolates found in the hospital. For this reason, it is recommended that a penicillinase-resistant penicillin be used as initial therapy for any suspected staphylococcal infection until culture and sensitivity results are known.

Cloxacillin sodium is a compound that acts through a mechanism similar to that of methicillin against penicillin G-resistant staphylococci. Strains of staphylococci resistant to methicillin have existed in nature and it is known that the number of these strains reported has been increasing. Such strains of staphylococci have been capable of producing serious disease, in some instances resulting in fatality. Because of this, there is concern that widespread use of the penicillinase-resistant penicillins may result in the appearance of an increasing number of staphylococcal strains which are resistant to these penicillins.

Methicillin-resistant strains are almost always resistant to all other penicillinase-resistant penicillins (cross-resistance with cephalosporin derivatives also occurs frequently). Resistance to any penicillinase-resistant penicillin should be interpreted as evidence of clinical resistance to all, in spite of the fact that minor variations in *in vitro* sensitivity may be encountered when more than one penicillinase-resistant penicillin is tested against the same strain of staphylococcus.

**CONTRAINDICATIONS:**

A history of a previous hypersensitivity reaction to any of the penicillins is a contraindication.

# Virginia Medical's GUIDE TO STOP SMOKING

By Ann Gray,
Managing Editor

YOU think it's hard to stop smoking? You're right. Listen to this from one of the world's acknowledged experts on nicotine, Dr. Michael A. H. Russell of London:

"Cigarette smoking is probably the most addictive and dependence-producing form of behavior known to man."[1]

No wonder a lot of people who want to stop smoking need help to do it. In Virginia, there are many ways to get that help. This directory is designed to guide you to people and agencies that offer those ways.

Where lies the best chance of success? There is no sure yardstick to measure the effectiveness of any of these methods. The popular group programs measure their success by the number of persons who say they have quit smoking by the end of a program. But some persons may not want to admit they haven't quit and so fib their way into the success column. Moreover, maintaining abstinence after completing a program is a long, rocky road, and the percentage of those who lapse back into smoking is extremely high.

Those who run group programs in Virginia report generally that 70% of participants say they have stopped smoking by the end of a course, and although a higher figure is heard now and then, 70% jibes with national figures. But 12 months after the course so many of these "successes" have returned to smoking that the rate drops to 30%, some times even lower.[2] To combat this recidivism, long-term maintenance programs are now being talked about, to support ex-smokers in the way Alcoholics Anonymous supports ex-alcoholics, but to this writer's knowledge no such maintenance program exists yet in Virginia.

The need for long-term maintenance proves the point that smoking cessation is a process, not an event,[3] and most people don't get into the swing of it on the first attempt. This is not generally known and leads to a lot of unnecessary feelings of failure. Try, try again is the name of the stop smoking game.

But you have to start trying somewhere, and in this directory you may find a beginning. Read about the available methods in the following paragraphs; some aspect of a program may appeal to you. Then check around among friends and the persons with whom you work; their experience is an excellent index.

Many Virginians have stopped smoking. You can, too. True, you have to be strongly resolved to quit; it is this element of motivation that the people and agencies here described are intent on fortifying. But it also takes a lot of discipline, and that's entirely up to you.

## Group Programs

### Virginia Lung Association

Of all the diseases linked to smoking, two that involve the lungs come first to mind—lung cancer and emphysema. That is why many persons who need help to quit smoking turn to the Virginia Lung Association, whose Stop Smoking Clinic has helped turn a lot of smokers into ex-smokers.

"It filled my needs completely," is the way one young woman sizes up this program. "It was very professionally done, the movie had a sense of humor, and the message was told plainly, like it is, without lecturing." One year later this woman still is not smoking.

The Stop Smoking Clinic format is flexible, so that Virginia Lung Association chapters over the state can adapt it to local needs. From four to six sessions, each two hours long, comprise a clinic; they may be on consecutive evenings, or there may be three meetings one week and two the next. Two followup sessions complete the course. Clinics are scheduled when sufficient demand has been expressed, to a total of 50 participants in each clinic. The instructors are volunteers. Setting for the course is usually a hospital, church or community center. The Virginia Chapter, American Cancer Society, frequently is a cooperating sponsor. Some chapters give the course free, some charge $5.

This program is an analytical one, in which you learn a lot about yourself and your smoking. There are self-tests—one that investigates the strength of your resolve to quit, another that gives clues as to why you smoke. You are given a "pattern sheet" to wrap around your cigarette package; in it you enter information each time you smoke—when and how much, the occasion, how acute the feeling of need, and other pertinencies that map your smoking pattern. All these findings are studied during the second hour of each session, when participants divide into five small groups, each under the trained leadership of a volunteer who became an ex-smoker through this program.

During the first hour of each meeting the physiological aspects of smoking are explained by pulmonary and cardiology specialists, and a psychologist brings his insight to the difficulties of conquering the psychological addiction to smoking.

All the Virginia Lung Association's regional chapters and its one affiliate offer Stop Smoking Clinics. Here are their locations and phone numbers so that you may inquire about a clinic in your area: Alexandria, (703) 591-4131; Bristol, (703) 669-2933; Charlottesville, (804) 295-9343; Front Royal, (703) 635-5400; Lynchburg, (804) 846-1829; Newport News, (804) 595-1184; Norfolk, (804) 855-3059; Richmond, (804) 355-3295; Roanoke, (703) 362-2330; Suffolk, (804) 934-2129; Verona, (703) 886-9215. Or call state headquarters at the Richmond number listed above.

The Virginia Lung Association has strong ties with the medical community; its president this year is a physician, Dr. Donald L. Brummer of Richmond.

### Seventh Day Adventist

First of the smoking cessation programs organized for widespread offering, the 5-Day Stop Smoking Plan of the Seventh Day Adventist Church has been helping smokers quit since 1962, two years before the Surgeon General's landmark report *Smoking and Health* sounded the smoke alarm.

It is not surprising that Adventists have led in the anti-smoking movement, for by conviction they avoid nicotine, alcohol and all other drugs, and work through diet and exercise to build healthy minds and bodies. Spurred by this creed, more than 20,000 Adventist churches around the world offer the 5-Day Plan to their communities. Multitudes have accepted the offer.

The format for this smoking cessation program was developed jointly by a physician who is also an Adventist, J. Wayne McFarland, MD, of Loma Linda University in California, and the pastor of his church. This same teamwork characterizes the program today, for the 5-Day Plan is conducted by an Adventist pastor, whose assignment is the psychological side of the format, and a doctor, whose responsibility is the medical message.

The doctor need not be an Adventist, as was Dr. McFarland, but at the 5-Day Plan meeting this reporter visited, he happened to be: Dr. Robert L. Wood volunteers evenings to the plans offered by his church, the Patterson Avenue Adventist Church in Richmond, while by day he serves the Virginia Department of Health as director of the Emergency Medical and Health Facilities Services Division.

A 5-Day Stop Smoking Plan is offered whenever a pastor receives sufficient requests for one, typically four times a year. The groups are small, usually 12 to 15 persons. The sessions are held over five consecutive days, with a followup meeting in the week after the course is completed. Each session lasts two hours. The program customarily is held in a meeting room of the elementary school owned and operated by each Adventist church. The fee is $5.

Dr. McFarland's contribution is written large on the plan. Films and brochures graphically illustrate the physical damage smoking can do. Explicit guidelines are prescribed for the five days of withdrawal: what to eat and drink; what physical symptoms may occur and how to cope with them; what to do when craving is acute; how to encourage relaxation and sleep. These instruc-

tions are arranged in daily diary form and bound into a pocket-sized booklet. The earnest participant embraces this little book with the tenacity of a shipwreck victim clinging to a life preserver.

Up front in this booklet you fill in the name and phone number of your "buddy," who is chosen or assigned at the first meeting. Buddies are on call to each other day and night, home or office, to give support when the going gets rough. And the program has a theme, "I choose not to smoke," shouted in chorus as a finale to each session.

Aside from such occasional references as a section in one brochure titled "Divine guidance never disappoints," this program exhibits no religiosity, nor does it proselytize for the Adventist church. Indeed, secular groups have borrowed the format and used it without deletion. But the 5-Day Plan does somehow create a sense of spiritual experience, shared in friendship, and that can be strongly motivating.

To inquire about this program, call a Seventh Day Adventist church in your community; you may find it listed in the white pages under "S" or in the yellow pages under "Churches." Or state headquarters will help you: Potomac Conference of Seventh Day Adventists, Gamont Place, Staunton VA 24401, (703) 886-0771.

### University of Virginia

Of Virginia's three medical schools, only the University of Virginia at Charlottesville has a smoking cessation program. It is called the Stop Smoking Clinic and is one of five clinics in which behavioral principles are applied to health problems under the aegis of the Department of Behavioral Medicine and Psychiatry. The program was originated by one of the department's clinical psychologists, Daniel J. Cox, PhD, who also conducts it.

The timetable for this clinic consists of a 2-hour session once a week for eight weeks. The meetings may be daytime or evening, depending on the choice of the participants, and are held at the Behavioral Medicine Center on the grounds of UVa's Blue Ridge Hospital. A clinic is scheduled whenever half a dozen persons have asked for it. The fee is on a sliding scale, typically $10 per week, which is something like the sum spent on cigarettes each week by a confirmed smoker.

Dr. Cox describes his approach as an amalgam of all scientifically documented, effective intervention programs. The format is flexible, permitting the participant optional routes; but broadly speaking, in the first four sessions the smoker progressively reduces and then eliminates his smoking, and in the last four, the focus is on remaining a non-smoker and maintaining the gained benefits.

Since the fall of 1979, 75 persons have completed this course. If you want to inquire about it, call or write Daniel J. Cox, PhD, Box 190, University of Virginia Medical Center, Charlottesville, VA 22908, (804) 924-5314.

### Smokenders

Almost everyone in the country must know by now the smoking saga of Mrs. Jacquelyn Rogers, wife of a dentist and mother of four, who after 20 years of failure with one method or another finally succeeded in stopping smoking, distilled the ingredients of her experience into a recipe for others, and then cooked up the for-profit Smokenders business. It's the kind of story newspapers and magazines thrive on, and Smokenders is the best known of all smoking cessation programs.

It is also the most expensive, with a current tab of $375. Against that price can be set the hope that you will quit smoking and so save all the money you are now spending on cigarettes and their side effects. Moreover, some say, laying that much money on the line may galvanize you to success. In any case, Mrs. Rogers says that more than 100,000 persons have paid the Smokenders price of admission.

A Smokenders seminar consists of eight 2-hour sessions, one per week in consecutive weeks. These are evening meetings, held in a commercial setting, usually a top-drawer hotel or motel. A program is scheduled when requests from the community indicate sufficient demand for it; newspaper advertising then heralds its coming and augments the enrollment. Instructors are persons who themselves have stopped smoking through the Smokenders course and have completed a training program. They are paid for their work.

Participants in the course are encouraged to smoke as much as they like until the fifth, "cut-off" session, at which juncture everyone is supposed to be able to quit. How this motivation is developed constitutes the heart of the program, and participants sign a paper at the outset of the course promising not to reveal the details. The last three sessions are concerned with maintaining the new non-smoking life.

Smokenders is flourishing, not only all over the United States but in Canada and Europe, too; and although Mrs. Rogers says she has to date plowed the profits back into her corporation, she may become the first tycoon of the smoking cessation business.

In Virginia, a major Smokenders push was signalled recently by the appearance in newspapers over the state of a full-page ad announcing the coming of four seminars—two in Richmond, one in Newport News, one in Williamsburg. In the week preceding these seminars, said the ad, there would be free introductory meetings at all four locations for

## No Wonder Drug for Smokers

Is there a drug that will "cure" nicotine dependence? No.

And some drugs advertised as withdrawal aids do not live up to claims.

Participants in a group of drug therapy programs who were given lobeline, one of the ingredients in such drugs as Nicoban® and Bantron®, and tranquilizers were found to have about the same cessation success rates as those who were given placebos; in several programs the placebo subjects actually had higher success rates than those taking drugs.[4]

Current drug investigation focuses on nicotine. Convinced that nicotine is addictive, some researchers tried blocking the nicotine "receptors" in body cells, the way the heroin-blocking drug Naloxone reduces heroin addiction; they found, however, that the nicotine-blocking chemicals only caused smokers to smoke more.

But giving smokers nicotine itself in some form other than cigarettes can reduce smoking, research indicates, and a nicotine chewing gum, Nicorette, is being tested clinically as an aid in weaning smokers away from nicotine while they lick the psychological addiction to smoking. The gum may go on the market as a prescription drug late this year. Researchers caution, however, that it is not a cure-all.[1,5]

What about the cigarette filters designed to gradually reduce "tar" and nicotine levels?

Of the manufacturers who advertise these filters as an aid to gradual smoking withdrawal, none will divulge sales figures or success rate claims. One company spokesman indicated that many users cannot quit smoking entirely and so continue to purchase additional kits and repeat the process.[2]

five evenings in a row.

This reporter joined about 75 persons at one of these meetings and found the reception friendly, the air almost asphyxiating with cigarette smoke, and the sales pitch mighty persuasive.

According to a Smokenders spokesman, these four seminars enrolled a total of 300 persons.

Headquarters for the Smokenders region that includes Virginia is at 919 North Kenmore Street, Arlington VA 22201, where the phone number is (703) 528-4357. Mrs. Diana Brown is the administrator. Mrs. Joan Siegel, office manager, probably will answer your call and will send descriptive pamphlets if you ask her for them.

### Hospitals

Virginia's hospitals are beginning to offer smoking cessation programs. In a recent training course funded by the Virginia Hospital Association, representatives of six Virginia hospitals learned how to conduct stop smoking seminars, then returned to their hospitals to put the training into practice. The participating hospitals were the Arlington Hospital; Chippenham Hospital and the St. John Vianney Center, Richmond; Fauquier Hospital, Warrenton; Lynchburg General Hospital; and Radford Community Hospital.

The program these hospitals chose is the Stop Smoking System sponsored by the American Health Foundation, a non-profit organization devoted primarily to research and preventive medicine. A Michigan psychologist, Donald Powell, PhD, originated the program and conducted it on his own for many years, adapting the format to clinical experience, before joining the foundation two years ago.

Medical institutions like this system, and Dr. Powell is also frequently commissioned by corporations to conduct smoking cessation seminars for their employees; Exxon, Burlington Mills and Xerox are among his recent corporate clients.

The AHF Stop Smoking System consists of either five consecutive 1-hour sessions or four consecutive 1½-hour sessions. There are also two followup meetings, one in each of the two weeks after conclusion of the course. The format includes aversion techniques, deep breathing exercises and relaxation skills; options are offered so that participation can be tailored to individual need. The cost is $95.

At least two other hospitals in Virginia have smoking cessation programs in the planning stage: Roanoke Memorial Hospital and Riverside Hospital, Newport News. A call to a hospital in your community may yield news of a smoking cessation clinic coming soon.

## Private Therapy

### Hypnosis

When the first Surgeon General's report in 1964 linked lung cancer to smoking, someone had the bright idea that hypnosis would be the smoker's saviour, and there was a great rush for appointments with hypnotists. But hypnosis could not live up to these expectations; it proved effective for relatively few, and these all too often relapsed into smoking again.

Nontheless, hypnosis is still con-

sidered by some a valid route to smoking cessation, but there is an emphasis now on self-hypnosis; this permits the smoker to reinforce the hypnotic prohibition himself as needed and involves a minimal amount of professional time.

If you want to try hypnosis, ask your family physician for a referral to a person well-qualified in hypnotic techniques. Beware of advertisements, such as a recent one in a Virginia newspaper that read, "Stop smoking thru hypnosis." A call to the published phone number led to a person who was new to the community, had no scientific degree of any kind, and was offering hypnosis at $50 an hour in a residential setting.

### Psychotherapy

To undergo nicotine withdrawal, some persons have checked into psychiatric hospitals, where withdrawal from alcohol or "hard" drugs is often treated. This avenue is beyond the reach of all but an affluent few, but the person oriented to psychotherapy might invest in some sessions with a psychiatrist or psychologist for guidance and support in the early days of withdrawal. If you need a referral for this, ask your family doctor.

Some psychologists offer smoking cessation seminars to very small groups, a personalized approach not far removed from private therapy. An ad for such a program that appeared recently in a Richmond newspaper offered "A.S.H.E.S., A System to Help Eliminate Smoking." The phone number led to a psychologist and licensed professional counselor, whose program includes behavior modification and relaxation techniques and consists of two 90-minute sessions per week for four weeks, with two followup sessions. Fee for the course: $175.

Other advertisers may not have such valid credentials. It is wise to investigate carefully all programs advertised by individuals before laying out your money—and your hopes. Your family doctor will help you evaluate such ads.

## Self-Help

### Brochures and Kits

Two manuals were launched this year by the American Lung Association: "Freedom from Smoking in 20 Days", to help a smoker quit, and "A Lifetime of Freedom from Smoking", to help maintain abstinence. The first one costs $5; within its pages is a request card that will bring the second manual free of charge. Call your regional Lung Association as listed above or the state office, (804) 355-3295.

These four offerings of the American Cancer Society are available free of charge:

- "Quitter's Guide: A 7-Day Plan to Help You Stop Smoking Cigarettes," a 24-page brochure.
- "You quit. Now help a friend quit." This kit is designed for the ex-smoker who wants to help another person stop smoking.
- The "I Quit Kit", an elaborately designed box of booklets and other encouragements, including a small record.
- The "Help Quit Kit", a lavish presentation intended to help physicians help their patients stop smoking, with signs and a poster and SMOKER labels and prescription pads and other paraphernalia.

For any of these, call this toll-free number: 1-800-552-7996.

### Books

*Kicking It: The New Way to Stop Smoking Permanently,* by David L. Geisinger. Grove Press, 1978, $1.95 in soft cover. Geisinger, a psychologist, is a little glib but has some good tips.

*You Can Stop,* by Jacquelyn Rogers. Pocket Books, 1977, $2.25 in soft cover. Mrs. Rogers is the founder of the Smokenders program described above, and this is its bible. Helpful insight and advice.

The author, who stopped smoking in 1979, heartily thanks key persons in all the programs described above for their generous cooperation and the National Interagency on Smoking and Health for furnishing the no-smoking device on the cover.

### References

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2. The Smoking Digest: Progress Report on a Nation Kicking the Habit. Washington, US Department of Health and Human Services, NIH Publication No. 79-1549, 1979, pp 66, 67, 74
3. Ross WS: Personal communication, March 27, 1981
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## Discontinued in Virginia: Acapuncture

Acapuncture is offered in the United States and abroad as an aid to smoking cessation but is not now available in Virginia largely because, say the anesthesiologists who were administering it here, the success rate was a discouraging 35%. The treatment is performed in the doctor's office. The usual procedure is to numb the ears first with a local anesthetic, then insert a surgical staple in each ear at the site of the sensory nerve said to be involved in smoking. These are removed by the doctor at the end of three months.

arsha Polier

# Cigarette Smoking in Youth: Prevention Is the Key

John J. Witte, MD, *Atlanta, Georgia*

"It is far easier to prevent a young person from smoking than to help him or her quit smoking. The analogies with infectious diseases are appropriate; we do a far more effective job preventing polio than we ever did treating it. As a pediatrician, I look forward to new and innovative ways of preventing smoking in the young."

THE MORTALITY associated with cigarette smoking is astounding. One smoking death occurs every two minutes in the United States. This figure includes, each year, 80,000 lung cancer deaths, 22,000 deaths from other cancers, 225,000 deaths from cardiovascular diseases, and 19,000 deaths from chronic pulmonary disorders directly related to cigarette smoking. Not included is the increase in perinatal mortality related to smoking during pregnancy or other causes of death less directly related to smoking.

There is significant morbidity associated with smoking as well—episodes of needless disability and suffering, time lost from the productive work force and the actual costs associated with the care of smoking-related diseases. In 1979, the last year for which figures are available, smoking accounted for an estimated $5 to $8 billion in health care expenses. Lost productivity, wages and absenteeism caused by smoking-related illness cost between $15 and $18 billion in 1979. The cost of human suffering was great but cannot be quantified in dollar terms as easily.

More than 55 million Americans now smoke cigarettes regularly. Would you believe that more than 600 *billion* cigarettes are smoked each year in this country?

So the problem is great and it is costly. But it is also completely preventable. Cigarette smoking is the number one cause of *preventable* premature death and disability in the United States.

Evidence is accumulating that the health effects of smoking evolve over a lifetime and that the average age of experimentation with cigarettes and inhalation of regular cigarette smoking, as well as the age of onset, has been decreasing. We know that the younger the age that a youth or adolescent begins to smoke the more likely it is that that person will become a heavy habitual smoker. The mortality rates from all causes are significantly higher among those who initi-

Presented at Pediatric Ground Rounds at the Medical College of Virginia/Virginia Commonwealth University on March 3, 1981.

Dr. Witte has been for 19 years with the Centers for Disease Control, where he is now medical director of the Center for Health Promotion and Education. He is a graduate of Johns Hopkins University and trained at Hopkins' Harriet Lane Home. Address correspondence to him at the Centers for Disease Control, Atlanta GA 30333.

ate smoking earlier in life, and the overwhelming majority of people who smoke cigarettes begin during adolescence or even before. Thus, this is a problem for the pediatrician, a problem where effective preventive practices have the potential to accomplish a great deal and should receive a high priority.

It should be noted that although an estimated 30% of smokers have quit since the Surgeon General's report in 1964, the number of smokers in the country continues high because so many young people have begun to smoke.

My discussion here is about the prevalence of teenage smoking in this country, the epidemiologic characteristics of those young people who smoke, how this has changed in recent years, and how we as physicians can have a positive influence on young people so that they will not begin to smoke.

The sources of data are derived from national surveys conducted by the National Clearing House for Smoking and Health, Centers for Disease Control, and National Institute of Education in 1967, 1970, 1972, 1974 and 1979. The methodology was designed to make the prevalence rates statistically comparable. Persons aged 12–18 years were included in each survey.

**Smoking Rates in Youth**

Looking first at smoking rates among males, the years between 1968 and 1979 have been marked by change. During the period 1968-1974, the prevalence of boys 12-18 who were classified as "current regular smokers" remained stable at about 16%. As you might expect, these rates were higher in older age groups. Only 5% of 12- 13- and 14-year-old boys smoked, whereas more than 30% of 17- and 18-year-olds smoked regularly.

A significant decrease occurred among male smokers during the second half of the 1970s. By 1979 only 11% of boys overall smoked regularly, compared to 16% ten years before. The decrease was noted in every age group but was most dramatic in 17- and 18-year-olds—where the proportion of smokers dropped from 31% in 1974 to 19% in 1979. In other words, almost one in three males 17 and 18 years of age smoked in 1974, whereas only one in five was smoking in 1979. Similar but less striking decreases in smoking rates were noted among the younger age groups.

Smoking patterns among teenage girls were somewhat different. Between the years 1968 and 1974, the proportion of 12- to 18-year-old girls who smoked almost doubled—from 8% in 1968 to 15% in 1974. Between 1974 and 1979, there was a very small decline from 15% to 13% considered as current regular smokers. This decline is almost entirely accounted for by girls 16 years of age and younger. However, the rates for girls 17 and 18 years of age *increased* to 26%. This rate is more than 25% higher than for males of corresponding age.

The disappearance of differences between the incidence of smoking in boys and girls and the reversal among 17- and 18-year-olds is quite apparent, but adequate documentation is not available to explain these changes. One possibility is that many social differences between the sexes are disappearing in our society. The familiar advertisement "You've come a long way, baby" is definitely and sadly the truth.

**Characteristics of Teenage Smokers**

Who are the teenagers who smoke? As with other adolescent behavioral problems, one can see patterns among cigarette smokers similar to those seen among young people who consume alcohol excessively, abuse drugs or are sexually promiscuous. Smoking appears to be another aberrant direction in the adolescent decision-making process.

Let's look first at family patterns. Rates of smoking are highest in those households where both parents are not present. Conversely, prevalence is lowest where both parents are present in the household. This pattern persists through all of the five surveys where both parents were present, the teenager was more likely to smoke if one or both parents smoked cigarettes. In households where neither parent smokes, the overall rate of teenage smoking is 6%. Smoking among older siblings also has an effect. Teenagers are three times more likely to smoke when an older sibling in the household is a cigarette smoker.

Parental education is another contributing factor. As you might expect, the educational level of the parents is inversely related to the cigarette smoking rates of the teenagers. Presumably rates should be lowest among children of health professionals, particularly physicians, but there is no data to substantiate that.

Peer groups and their attitudes and behaviors have a profound effect, as is the case with other teenage behavior patterns. In the most recent survey, for example, more than 90% of those who said they were smokers indicated that at least one of their four closest friends was a regular smoker. Conversely, among both boys and girls surveyed, only about 30% of nonsmokers had close friends who smoked regularly. So it is probably quite true that when the group of which a teenager sees himself a member—or would like to become a member—embraces a lifestyle that includes smoking as a norm, that person will likely be a smoker.

The surveys indicate that teenagers are well aware of the fact that cigarette smoking is damaging to their health. Those who do not smoke at present indicate that they have no desire to start doing so. Half of those who do smoke state that they do not intend to continue doing so. Even though surveys indicate teenagers recognize the threat to health associated with cigarette smoking, they also show teenagers tend to believe that it's all right to experiment provided they don't get "hooked". The problem here, of course, is that continued experimentation inevitably leads to habituation.

Contrary to belief, feelings toward authority do not appear in these surveys to be related to the prevalence of smoking per se. The teenager who does smoke, however, is less apt to say that he likes to turn to his or her parents for advice than the non-smoker.

The effect of advertising is difficult to assess. It is very clear that current tobacco ads are aimed at young people. The usual scenes include virile, handsome young men and/or attractive and slightly seductive young women who appear normal, healthy and happy with a cigarette. Next time you look at a cigarette ad, look carefully. There is no smoke! The tobacco companies are carefully cultivating the youth of America with their multimillion dollar advertising campaigns.

**Factors in Prevention**

Why have smoking rates gone down for all teenager groups except 17- and 18-year-old girls?

The answer is probably a combination of several factors, but most important, I believe, is basic education. Health education as a discipline in the schools has made giant strides during the past two decades. Educators are paying more attention to comprehensive courses dealing with all parameters of the body and of health.

As physicians, we can have a very positive and influential impact on this process. We are looked up to as the health leaders in our community. Taking a more active role in assuring quality health education for our children is a responsibility I believe we should willingly take on.

Smoking rates in adolescents have probably declined to a degree because adult smoking rates have also gone down. We have seen that smoking behavior of teenagers is related to whether or not parents or older siblings do smoke.

And physicians have played a role, largely, I believe, as exemplars. Smoking rates among physicians are lower than for any other professional group; nationally only 20% of physicians smoke.

How do we lower the rates even further? Education, beginning as early as possible—kindergarten, for example—will probably have the most impact. We can't effectively change the home environment or alter the behavior of the peer group, but we can be effective as exemplars and counselers. We should use every opportunity to work positively with adolescents. Smoking cessation programs among adolescents are difficult and often yield disappointing results; the most effective methods use adolescents in peer counseling sessions. Cessation activities, in general, are more effective in the younger age groups.

Adolescent decision-making is a complex process. Cigarette smoking is only one small part of the process. Pediatricians are accustomed to dealing with outcomes in adolescent behaviors. We are concerned about the pregnant teenager or a teenager in trouble with alcohol or drugs. Yet we should also be every bit as concerned with the adolescent who smokes cigarettes.

But let us try to alter our focus away from outcomes and treatment and toward prevention. It is far easier to prevent a young person from smoking than to help him or her quit the habit. The analogies with infectious diseases are appropriate. For example, we do a far more effective job preventing polio than we ever did treating it. When I was a resident, cases of measles encephalitis were commonly seen on the wards, many with neurologic residua. Now they are relatively rare because we can prevent measles effectively with the use of an excellent vaccine.

There is no vaccine for the problems of the adolescent, particularly smoking. But as is the case with measles or polio, prevention is a far better course to follow than coping with the eventual outcomes of smoking. As a practitioner of preventive medicine, I feel frustrated because there is no vaccine, no antibiotic, no surgical procedure that will help alter the outcomes. As a pediatrician I look forward to new and innovative ways of prevention.

**SCHOOLS STUDY PREVENTION**

In Virginia schools, educators are testing ways to turn youngsters away from smoking in order to plan sound prevention programs. With money from the federal government, the Virginia Department of Health has set up five smoking intervention projects in the schools of Richmond, Arlington County, Norfolk, and the five counties of the Charlottesville area; the target is alcohol abuse as well as smoking. The Virginia Lung Association and the Virginia Chapter, American Cancer Society, helped in developing these projects.

# Grand Rounds: Renal Hypophosphatemic Rickets

From the Departments of Pediatrics and Radiology,
Medical College of Virginia/Virginia Commonwealth University.
James C. M. Chan, MD, Craig R. Rudlin, MD, and Michael B. Kodroff, MD.

## Presentation of Case

Dr. Craig R. Rudlin: A 4½-year-old white male child was brought to the National Institutes of Health in 1968 for evaluation of short stature and bowed legs. He was 52 cm tall and weighed 3.4 kg. Delivered normally after his mother's uncomplicated pregnancy, the child had exhibited normal early development: He walked at 11 months, talked at 9 months and achieved toilet training at 3 years of age. Teeth erupted at 8 months. Linear growth declined shortly after 18 months of age and progressive bowing of the lower extremities was noted from approximately 2 years of age. Although the patient's diet was described as grossly normal without evidence of any food intolerance, dairy products were consumed in limited quantities because of associated "leg cramps".

The medical history prior to 1968 was remarkable for repeated alveolar infections necessitating the removal of eight teeth, and a large occipital prominence noted since 1 year of age, resulting in some deformity of the skull. The family history was positive for "bowed legs" in both a maternal grandfather and a great-grandmother. In addition, the patient's mother had "vitamin-D resistant" rickets.

On physical examination the patient was a well-nourished, intelligent male, with obvious bowing of both tibias and external rotation and bowing of the femurs. The arms were normal, and an occipital bulge was appreciated. Examination of the head, eyes, ears, nose and throat was within normal limits; the thyroid was not palpable. The chest excursion was normal; bony prominences were appreciated on the 5th and 6th ribs near the midclavicular line bilaterally. Cardiac and abdominal examinations were also within normal limits. There were normal male genitalia. The deformities of the extremities were as noted above. Motor strength and coordination was considered normal. Neurological examination was interpreted as normal; although the gait was awk-

Address correspondence to Dr. Chan at Box 498, MCV Station, Richmond VA 23298.

Presented 5-1-80; submitted 8-21-80.

ward secondary to the bowing, the station was normal and fine motor coordination was good.

Laboratory data upon initial presentation included a hematocrit of 40 vol% (hemoglobin of 12.5 gm%) and a WBC of 6600/mm$^3$ with a normal differential. The specific gravity of the urine was 1.026, the pH 7.1. Microscopic examination of the urine revealed 0 RBC, 1 to 5 WBC, and no casts or bacteria. The serum electrolytes included a sodium of 135, potassium of 4.3, chloride of 104, and $CO_2$ of 24 mEq/1. The BUN was 7 mg/dl, the serum creatinine was 0.5 mg/dl, and the total serum protein was 6.7 gm/dl (albumin 4.3 gm/dl). The uric acid was 3.9 mg/dl, magnesium 1.5. mEq/1, and protein electrophoresis demonstrated a slight decrease in gamma globulins, quantitatively 0.7 gm/dl. Serum calcium was 9.5 mg/dl, phosphate 2.0 mg/dl and the alkaline phosphatase was 453 IU (elevated for age). Tubular reabsorption of phosphate was 89%, and the phosphate clearance was 4.2 ml per minute.

Radiographic studies revealed marked rachitic changes in all long bones, with a bone age of only 2½ years. Chest x-ray demonstrated splaying of the anterior end of the ribs bilaterally, and fragmentation of the humeral epiphysis. The epiphyseal line was noted to be jagged and widened. Pelvic films revealed irregularity and slight fragmentation of the femoral head, with flattening and irregularity of the metaphyses bilaterally. The femoral necks were short. The lower legs showed lateral bowing of the distal femoral metaphyses. Similar changes were also noted in tibia and fibula bilaterally. There was slight scaphocephaly on the skull film; the coronal and saggital sutures were closed and fused.

The possibility of renal tubular acidosis was excluded on the basis of a normal ammonium chloride test. The absence of diarrhea, steatorrhea or other evidence of malabsorption, and the absence of glycosuria and a normal 24-hour amino acid excretion, argued against the diagnosis of malabsorption and Fanconi's syndrome, respectively. Calcium absorption was demonstrated to be decreased.

The diagnosis at the conclusion of the patient's initial evaluation in 1968 was "vitamin-D resistant" rickets. In concordance with the then accepted hypothesis that the disease was secondary to the inability to convert viamin-$D_3$ to its active metabolite 25-hydroxycholecalciferol, the patient was begun on 25-hydroxycholecalciferol.

The patient received 25-hydroxycholecalciferol for approximately eight months, and although he subjectively improved in strength and stamina, there was no significant bone maturation. His therapy was thus changed to phosphate supplementation. Over subsequent months, 25-hydroxycholecalciferol was intermittently reinstituted without noticeable improvement. The orthophosphate was increased to the limits of gastrointestinal tolerance. Growth, however, responded only minimally.

In 1973, at 9 years of age, the patient was noted to have a serum calcium of 9.5, phosphate of 2.0-3.0 mg/dl, alkaline phosphatase of 420 IU, BUN 11 and creatinine of 0.5 mg/dl. A 24-hour urine collection was remarkable for a calcium of 18 mg, phosphate of 2000 mg and a creatinine of 440 mg. Serial muscle enzymes (including aldolase, CPK and SGOT) were all within normal limits. A neuromuscular examination and an electromyogram were normal. Therapy with dihydrotachysterol and supplemental orthophosphate was initiated. The response was disappointing, with less than 2 cm of growth over two years.

By age 11, the bone age was 9 and the rachitic changes persisted. Although the serum calcium remained within normal limits, the phosphorus continued to be depressed. A lower extremity fracture in 1978 required 14 weeks to heal.

But in 1979, at age 14, he was seen at the Medical College of Virginia and begun on 1,25-dihydroxycholecalciferol, while continuing phosphate supplementation, and a dramatic improvement was achieved. Within months his growth accelerated so markedly that by age 15, his height velocity was 14.1 cm/year, which is 235% of that expected for his chronologic age. His most recent admission was in March 1980 for calcium balance studies, and at that time his serum calcium was 9.8, phosphate was 4.9 mg/dl, and rachitic changes were no longer appreciated radiologically.

**Radiological Findings**

DR. MICHAEL B. KODROFF: X-linked hypophosphatemic rickets exhibits two distinct radiographic patterns.[1] In one pattern the rachitic changes, manifested by loss of the provisory zone of calcification, widening of the epiphyseal plate, splaying of the metaphyses and coarsening of the trabecular pattern, are pronounced in the lower extremities with relative sparing of the upper extremities. The widening of the epiphyseal plate typically is most pronounced along the medial aspect of the distal femur and proximal tibia, and there is bowing of the long bones, producing a varus deformity at the knees.

In the second pattern, manifested by this patient, the upper and lower extremities are involved equally, and in addition there is undertubulation of the long bones, resulting in short, squat bones with thickened cortices. This change is most characteristic of the hu-

merus. The trabecular pattern is coarse in the entire skeleton, including the spine and flat bones, a feature not seen with the first type. No changes of hyperparathyrodism are seen.

The dramatic bone healing with 1,25-dihydroxyvitamine-$D_3$ therapy plus phosphorus supplementation is shown in Figure 1.

## Discussion

Dr. James C. M. Chan: In summary, we have a 15-year-old white male with features of renal hypophosphatemic rickets, including growth retardation, ricketic bone disease with coarse trabeculation and thickened cortices, as well as persistent severe hypophosphatemia secondary to increased fractional excretion of phosphorus at the time of presentation, when serum concentrations of calcium and parathyroid hormone were normal.

The best characterized form of renal hypophosphatemic rickets is the sex-linked dominant type in which the clinical features of rickets are more severe in the male. This condition is synonymously known as sex-linked dominant hypophosphatemia, vitamin-D resistant rickets, or familial hypophosphatemic rickets.

Before the availability of 1,25-dihydroxyvitamin-$D_3$, healing of bone in sex-linked dominant renal hypophosphatemic rickets required large doses of vitamin-$D_2$ and phosphorus supplementation.[2,3] Frank vitamin-D toxicity was often seen. The reviews of Boyle[4] and Stickler et al[5] showed that the majority of children treated by the conventional method had frequent episodes of severe hypercalcemia. In view of the fact that hypercalcemia may impair renal function, it was recommended that vitamin-D not be used.[5] Moreover, despite vigorus therapy and these potential complications, hypophosphatemia is known to persist even with treatment consisting of 50,000 units of vitamin-$D_2$ and 3,000 mg of phosphorus supplementation.

Studies in children with renal hypophosphatemic rickets using the recently synthesized renal hormone, 1,25-dihydroxyvitamin-$D_3$, have resulted in dramatic improvement in bone healing and growth velocities.[6,7] In addition, Mawer et al[8] as well as Rasmussen and Anast[9] have reported similar findings utilizing 1$\alpha$-hydroxyvitamin-$D_3$, an analog of 1,25-dihydroxyvitamin-$D_3$.

The known actions of vitamin-D are three: 1) to increase gastrointestinal absorption of calcium and phosphorus; 2) to enhance renal excretions of calcium; and 3) to promote tubular reabsorption of phosphorus. The action of 1,25-dihydroxyvitamin-$D_3$ also increases intestinal absorption of calcium and enhances renal calcium excretion. However, the effect of 1,25-dihydroxyvitamin-$D_3$ on renal phosphorus excretion is unclear; contradictory results have been reported. In some cases there has been no change[10,11], in others a decrease[12], while in still others an increase[11] in phosphorus excretion.

Studies of the pathophysiology of renal hypophosphatemic rickets have included observations of an exaggerated phosphaturic response to parathyroid hormone[13]. The work of Glorieux and Scriver[14] has suggested a selective disorder of the parathyroid hormone-responsive component of the renal inorganic phosphorus transport mechanism. A selective disorder of transepithelial transport of inorganic phosphorus at the brush border membrane of the renal tubules has also been proposed[15]. Finally, recent work by Scriver et al[16] and Chesney et al[17] has demonstrated a significantly lowered serum concentration of 1,25-dihydroxyvitamin-$D_3$ in children with sex-linked hypophosphatemic rickets. Whether this abnormality is related to defective conversion of 25-hydroxyvitamin-$D_3$ concentration, or related to an increased catabolism of 1,25-dihydroxyvitamin-$D_3$ remains to be determined.

In the patient presented here, there was obvious hypophosphatemia in the order of 2.1 mg/dl of phos-

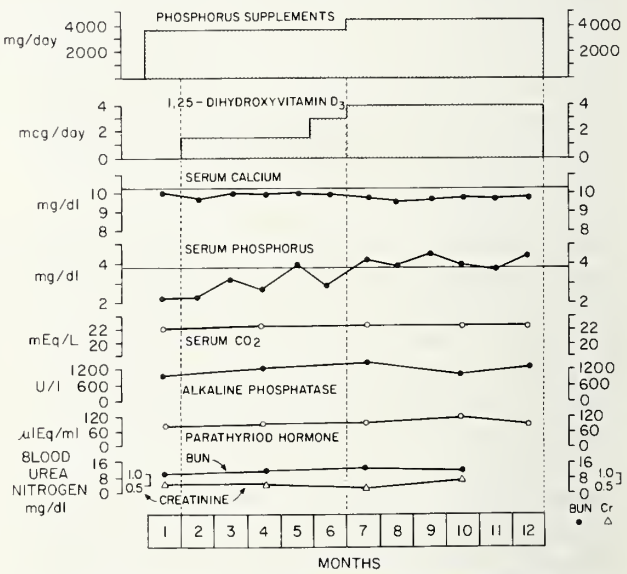


**Fig. 2. Serum biological data presented longitudinally over 12 months. Two upper panels present mode of treatment; lower panels show concentrations of blood constitutents. Note that normophosphatemia was achieved after 1,25-dihydroxyvitamin-$D_3$ was increased to 4 mcg per day. Serum calcium, carbon dioxide and parathyroid hormone remained in normal ranges, but alkaline phosphatase continued elevated. BUN and creatinine remained normal, indicating maintenance of relatively normal renal function.**

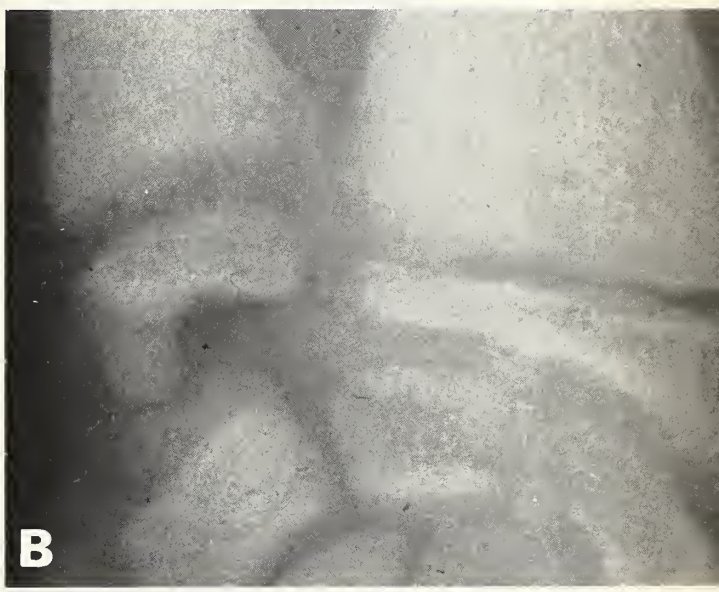

**Fig. 1A. Severe ricketic changes with loss of provisory zone of calcification of distal radius and ulna; metaphysis also irregular and widening of epiphyseal plate. Fig. B (at six months of therapy) and Fig. C (12 months). Progressive reconstitution of provisory zone of calcification and return to normal of both trabecular pattern and width of epiphyseal plate.**

phorus at the time of the first admission to the Medical College of Virginia's Clinical Research Center after one month off vitamin-D therapy, although phosphorus supplementation had been continued at a dose of 3,000 mg per day throughout this period.

As shown in Figure 2, over 12 months of study the patient was maintained on progressively increasing dosages of 1,25-dihydroxy-vitamin-$D_3$ (1 to 2 and finally 4 mcg per day) and phosphorus supplementation was maintained at between 3,500 to 4,000 mg per day. It was obvious that until 1,25-dihydroxyvitamin-$D_3$ was increased to 4 mcg per day, serum phosphorus concentration was not sustained at normal levels. In addition, there was no acid-base disturbance, as shown by the normal serum $CO_2$ concentration. The marked elevation of alkaline phosphatase may be related to active bone formation. Parathyroid hormone concentrations remained within normal ranges. Renal function remained relatively normal as evidenced by the normal BUN and creatinine concentrations. The lack of hypercalcemia as a complication of this treatment regimen is noteworthy, especially as contrasted to previous experiences in which conventional vitamin-$D_3$ was associated with a high incidence of hypercalcemia.[3,5]

In order to evaluate the effect of 1,25-dihydroxy-vitamin-$D_3$ in this patient, mineral balance studies were performed in the Clinical Research Center. One month prior to his second admission, phosphorus and vitamin-D therapy were discontinued. A constant metabolic diet was maintained throughout the study, which consisted of four periods of four days each. As shown in Figure 3, with administration of 1,25-dihydroxyvitamin-$D_3$, normalization of serum phosphorus concentration was achieved at a dosage of 4 mcg per day. The mineral balance studies as shown in the lower two panels of Figure 3 showed that increasingly positive balances were achieved in response to the increase in 1,25-dihydroxy-vitamin-$D_3$ administration. In addition, progressive increments in urinary calcium excretions were observed.

In view of the fact that hypercalciuria predisposed the kidney to nephrocalcinosis and nephrolithiasis, the data of three other patients under the same treatment regimen were examined to elucidate this potential complication. For purposes of comparison, all

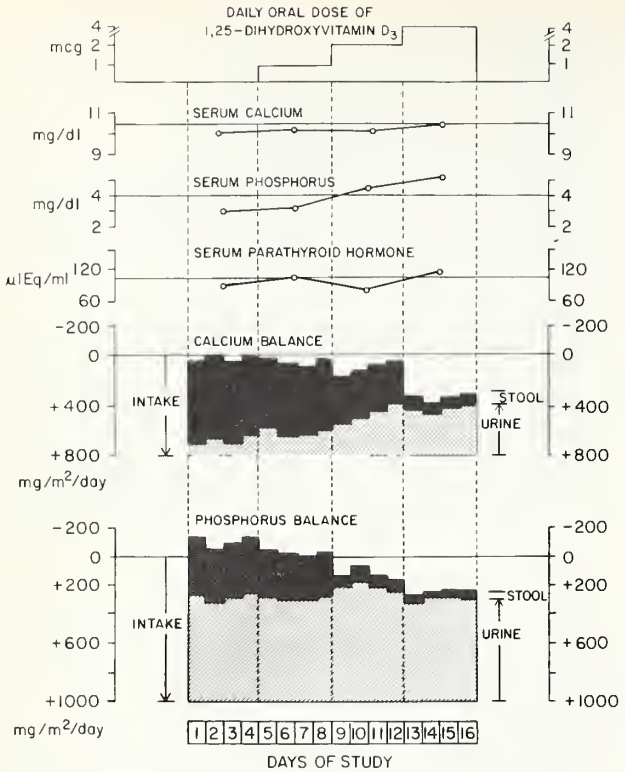


**Fig. 3. Effect of 1,25-dihydroxyvitamin-$D_3$ therapy. Mineral intake is plotted from zero axis downwards, urinary (stippled area) and stool (black area) outputs from bottom line upwards; distances between top line and zero axis represent mineral balances. Note improvements in calcium and phosphorus balances.**

urinary calcium excretion data obtained in the four patients treated with 1,25-dihydroxyvitamin-$D_3$ are shown in Figure 4. Obvious hypercalciuria was present in one out of the four patients at 4 mcg per day of 1,25-dihydroxyvitamin-$D_3$. Phosphorus excretions remained unchanged. Similarly, the tubular reabsorption of phosphorus was not affected by the 1,25-dihydroxy-vitamin-$D_3$ therapy. To test the observation that acidosis enhances the effect of parathyroid hormone on the renal tubule[18], net acid excretion was determined in these patients and was normal.

Of major importance is the accelerated growth velocity brought about in these patients with 1,25-dihydroxyvitamin-$D_3$. In the case presented, growth velocity of 3 to 4 cm per year was at the 3rd percentile from age 8 to 12, despite vigorous vitamin-$D_2$ and phosphorus supplementaion. Between ages 12 to 14, growth velocity decelerated to a nadir of 0.9 cm per year, probably secondary to the progressive and severe bowing of the lower extremities. When 1,25-dihydroxyvitamin-$D_3$ was instituted at age 14, a marked growth acceleration to 14 cm per year occurred in the subsequent 12 months.

Of equal importance are the radiological findings. As presented in Figure 1, complete healing of bone was demonstrated after 12 months of therapy with 1,25-dihydroxyvitamin-$D_3$.

The long-term plan for this child is the continuation of the 1,25-dihydroxyvitamin-$D_3$ therapy at 4 mcg per day, with careful monitoring of serum calcium and phosphorus concentrations at biweekly intervals. The dosage will be halved in the presence of hypercalcemia (>11 mg per dl) or if the "calcium x phosphate product" exceeds 70. The phosphorus supplementations will be continued and may even be increased to maintain the normalization of serum phosphorus concentrations. Monitoring of 24-hour urinary calcium excretion and creatinine clearances will be done monthly to evaluate hypercalciuria and renal function. The height will be measured during these monthly followups.

DR. MAURER: Where can one obtain this medication? Is this still a restricted investigational drug?

DR. CHAN: 1,25-dihydroxyvitamin-$D_3$ is now approved for the treatment of hypocalcemia in hemodialysis patients and is available by prescription. In the United States it is marketed under the trade

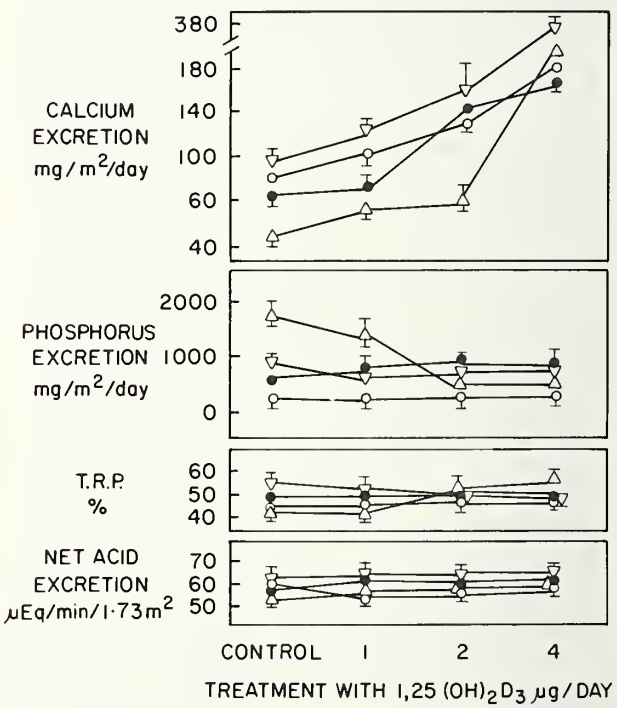


**Fig. 4. Effects of 1,25-dihydroxyvitamin-$D_3$ on urinary calcium and phosphorus excretions in four patients are shown in upper panels; tubular reabsorption of phosphorus (TRP) and net acid excretion are plotted in lower panels. Note that calcium excretion increased, but urinary phosphorus and net acid excretions and TRP were not affected.**

name of Rocaltrol® (Hoffman-LaRoche, Nutley, New Jersey) and manufactured elsewhere under different trade names.

DR. MICHAEL E. NORMAN: Have you used 1,25-dihydroxy-vitamin-$D_3$ alone, without the phosphorus supplementation?

DR. CHAN: We have conducted a number of studies in these patients using 1,25-dihydroxyvitamin-$D_3$ alone. It does not seem to work without phosphorus supplementation. Although there is evidence in the literature that high dosages of this vitamin-D metabolite or its analog will bring about bone healing as well as accelerated growth velocity, we have not been able to sustain normalization of serum phosphorus concentration with 1,25-dihyroxyvitamin-$D_3$ alone at dosages even up to 4 mcg per day. We have used 1,25-dihydroxyvitamin-$D_3$ up to 6 mcg per day for no more than four days in a controlled environment such as the Clinical Research Center. In addition, the hypercalciuria at very high dosages of 1,25-dihydroxyvitamin-$D_3$ is worrisome. Thus we are not willing to use the excessively high dosages of 1,25-dihydroxyvitamin-$D_3$. We have preferred to use a lower dose of 1,25-dihydroxyvitamin-$D_3$ plus the phosphorus supplement to achieve the desired goals.

DR. NORMAN: Did you compare the height velocity for bone age?

DR. CHAN: Indeed we did. In the three patients with bone age documented one year before the initiation of 1,25-dihydroxyvitamin-$D_3$ we were able to show that the mean height velocity for bone age under the present treatment regimen of 1,25-dihydroxyvitamin-$D_3$ showed 114-200% of the expected height velocity after one year of the new therapy.

The assistance of Mrs. Marilyn Reilly and Ms. Martha Dischinger is much appreciated. Dr. Harold M. Maurer's editorial review is gratefully acknowledged.

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# Cancer Trends: Breast Reconstruction after Mastectomy

G. Patrick Maxwell, MD, Charles E. Horton, MD, and
John B. McCraw, MD, *Norfolk Virginia*

In the past, breast reconstruction required so many procedures and yielded such poor results that patients were advised against it. Now, by implanting silicone beneath the pectoral musculature and utilizing a myocutaneous flap for needed tissue, excellent breast reconstruction can be achieved in a single operation. The authors describe the technique.

FOR many women the cure for breast cancer (radical mastectomy) has been worse than the disease.[1,2] Accordingly, surgeons have cautiously advocated lesser procedures[3-6] to minimize physical deformity and psychological trauma. These have ranged from modified radical mastectomy to lumpectomy. Radiotherapy has also been utilized as a primary modality and as an adjunctive agent. External prostheses have been developed and patient advocate groups such as "Reach to Recovery" have been formed. All of these activities are bound together by the common desire to better manage the patient as a whole—her psychological well-being, self-esteem and "body image", as well as her breast pathology.

Another method of attempting to achieve the same goal is breast reconstruction.

Ablative surgery in all parts of the body is generally followed by surgical reconstruction. Such is the case with cancer of the nose, cancer of the mandible, soft tissue cancers, cancer of the vagina, etc. Occasionally a prosthetic nose may be used, but this is seldom as satisfactory as a reconstructed nose. The same is true with the breast. Prostheses are cumbersome, awkward and a daily reminder of the patient's deformity. A surgical procedure that can restore a relatively normal resemblance of a breast makes life easier for the mastectomy patient in many ways.

Little enthusiasm has been generated by plastic surgeons over breast reconstruction in the past, however, because of the relatively poor results achieved. Multiple procedures were necessary, taking months or years and yielding results which had little, if any, resemblance to a normal breast. The introduction of the silicone gel prosthesis in 1963[7] brought a wave of enthusiasm,[8] but problems with capsule formation,

From the Department of Plastic Surgery, Eastern Virginia Medical School, Norfolk. Address correspondence to Dr. Maxwell at 400 West Brambleton Avenue, Norfolk VA 23510.

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Fig. 1A. Deformity after left modified mastectomy.

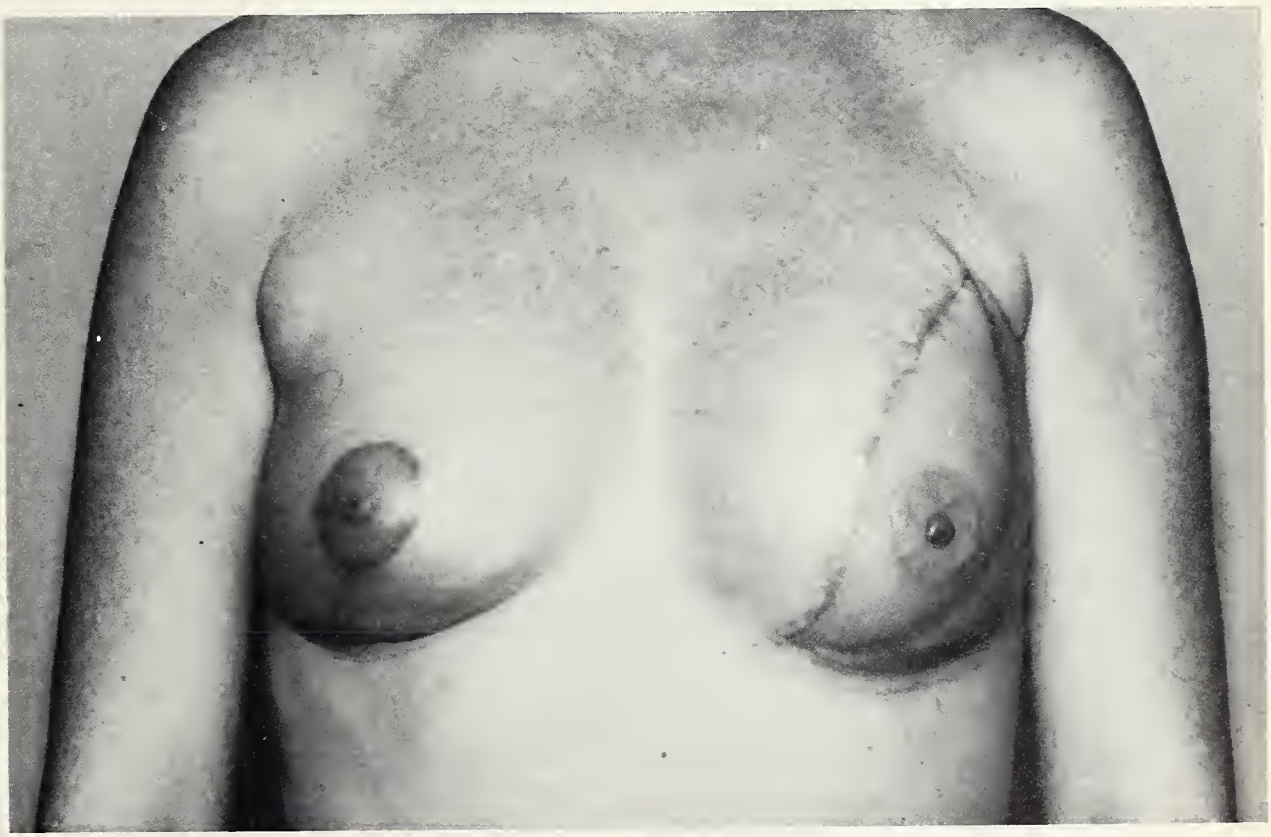

Fig. 1B. Result after one-stage, latissimus dorsi reconstruction.

skin breakdown and extrusion persisted, and skin tightness, infraclavicular depression, irradiation injury, widened scars and skin grafts were difficult obstacles to overcome. Some general surgeons, on seeing the results, advised their patients against it.

But recent developments have totally altered the ability of the plastic surgeon to reconstruct the female breast. One is the observation that a silicone implant placed beneath muscle seems to fare better than one placed beneath skin flaps. The increasing number of patients with modified mastectomies can be reconstructed by simply placing silicone implants beneath the preserved pectoral musculature.

Another important development is the myocutaneous flap[9-11], which allows a consistently reliable means of bringing in new tissue when local tissue coverage is not adequate. This has made obsolete the need for multiple procedures, tubed pedicle flaps and other such procedures. The concept of the myocutaneous flap is that the skin derives its blood supply from the underlying muscle. Carrying its overlying skin, the muscle can be rotated about an arc on its vascular pedicle.

The use of the latissimus dorsi muscle has added a totally new dimension to breast reconstruction.[12-14]

## Patient Selection

Every woman who undergoes a mastectomy should be informed of the possibility of reconstruction. This is not to suggest that every woman will wish to have reconstruction or should have it. The knowledge of the possibility, however, helps many women through the mastectomy experience.

The best candidate for reconstruction is the patient with Stage I disease, although patients with axillary nodal involvement may be reconstructed, even while on chemotherapy, if hematologic parameters allow. Only under rarest situations would a patient with advanced disease be considered a candidate for reconstruction. From a technical point of view any patient—following radical, modified, or simple mastectomy—may be reconstructed. With the latissimus dorsi technique there are no technical reasons for excluding a patient.

Patient motivation is probably the most important factor in selecting candidates. A patient not strongly motivated will not profit significantly, while a strongly motivated patient will usually gain tremendous psychological and physical improvement.

## Reconstruction Techniques

### Submuscular

If a patient has undergone a modified mastectomy or a total (simple) mastectomy with muscle preservation and adequate skin present, a silicone implant may be placed in a surgically created pocket. The pocket is located beneath the pectoralis muscle and incorporates the serratus muscle laterally.

This relatively simple procedure is restricted to the patient with abundant soft tissue coverage.

### Latissimus Dorsi

The entire latissimus dorsi muscle, with a portion of its overlying skin, can be transposed from the back to the anterior chest based on its proximal blood supply. In the patient who has had a radical mastectomy, the latissimus muscle is sutured to the clavicle superiorly and the sternum medially to replace the missing pectoral muscles and give infra-mammary fill and an anterior axillary fold. In the patient who has had a modified mastectomy, with denervated pectoral muscle, partially removed muscle, or skin tightness, the latissimus muscle is sutured to the lower edge of the pectoralis muscle to allow muscular coverage of the implant. The overlying segment of skin allows expansion of the chest skin to give satisfactory mound projection. Primary closure of the donor site leaves a linear scar on the back which has not proved objectionable. There is no functional loss from transposition of this muscle.

With this versatile procedure, skin grafts, irradiation injury and super-radical defects can all be overcome.

### Nipple

The nipple-areolar complex can be reconstructed in the same procedure, or later, utilizing skin grafts and composite grafts. The new nipple site is determined and de-epithelization carried out. A composite graft, generally taking half of the contra-lateral nipple, is sutured into the center of the denudated area. The donor site for the areolar graft is determined by the color of the normal contralateral areolar: post-auricular for pink, upper inner thigh for tan, or labia for dark brown. Cartilage may be used to give alterations in contour and a more normal appearance.

## Timing

Selection of the appropriate time for breast reconstruction requires technical, psychological, and pathological considerations. Whereas in the past thin skin flaps limited the ability of the surgeon to perform early reconstruction, the use of submuscular implantation allows reconstruction at any time, from a technical viewpoint. Thus, in selected patients reconstruction is performed at the time of mastectomy,[15,16]

but the usual time is six months to one year later.

Obviously each patient must be individually considered. An important factor in timing, certainly, is the state of the pathology. One might argue that since 90% of all local recurrences of disease will be manifested within two years, one should postpone reconstruction at least that long. This question is considered below.

## Discussion

The management of the breast cancer patient should be a multidisciplinary form of management. It should involve the patient's primary physician, her general surgeon, medical oncologist or radiotherapist (if indicated) and reconstructive surgeon. The general surgeon's role is the irradication of cancer, and it should be he, rightfully, who suggests to the patient the possibility of reconstruction and he who decides the appropriate time. This is the process reconstructive surgeons prefer.

Unfortunately, most patients who seek plastic surgical consultation for reconstruction are self-referred—by a friend who has had reconstruction, by an article read in a lay publication, or by a program seen on television. The usual reason for this roundabout referral pattern seems to be that the general surgeon told the patient he did not believe in breast reconstruction or that she was not a candidate, or implied that it was frivolous to consider such a thing and that the patient should be happy to be alive.

Let us look more closely at such misgivings.

Is there some inherent harm in putting a foreign body in an area which has previously harbored tumor cells? There is no scientific data which in any way suggests that the insertion of a silicone prosthesis in a mastectomy site adversely affects the patient from the viewpoint of cancer. It has been shown experimentally that insertion of silicone implants in a mammary cancer bed has no effect on the immunological status of the host.[17]

Will reconstruction mask recurrence? When local recurrence occurs, it develops in the skin at or near the suture-line. Since the implant is placed beneath the skin and muscle, the original chest skin and scar remain open to inspection and are not covered in any way. Detection of bone recurrence or distant metastasis would not be affected adversely by reconstruction. It seems unlikely that reconstruction would have a detrimental affect on the detection of recurrent disease.

Will reconstruction alter the ability to treat recurrence? Local recurrence in the non-reconstructed patient usually is handled by local excision plus radiation and/or chemotherapy. Precisely the same form of treatment can be utilized in the reconstructed breast. Radiation can be performed with the implant in place.[18] Local excision need not alter the reconstructed breast. Chemotherapy is not affected by a reconstructed breast.

Should one wait longer after mastectomy before undergoing reconstruction? The only possible reason to consider waiting deals with local recurrence. If, however, reconstruction does not alter the detection of local recurrence or adversely affect its management, this becomes a moot question. We feel there is no reason to delay reconstruction in the Stage I patient. It can be performed at any time the patient chooses.

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## CANCER TRENDS COMMENT

We are indebted to the authors for this clear presentation of the present state of the art for breast reconstruction following mastectomy for cancer. Dr. Horton has been one of the pioneers in this area of plastic surgery.

The surgeon responsible for the initial treatment of the woman with breast cancer should design the surgical procedure to give the patient the best possible chance for cure. However, attention to certain technical details is important for possible reconstruction of the breast. Avoidance of excessive removal of skin, use of transverse incisions when feasible, primary healing of skin flaps and meticulous wound closure should be integral parts of any mastectomy to achieve the best functional and cosmetic result. When a modified radical mastectomy is used, the neurovascular bundle to the pectoralis major muscle should be preserved. Regardless of the surgical procedure employed, the thoracodorsal nerve and vessels to the latissimus dorsi muscle should be kept intact.

As a surgical oncologist, I heartily endorse the multidisciplinary approach to the management of the patient with breast cancer. Any woman undergoing mastectomy for breast cancer should be aware of the options available to her through reconstructive surgery of the breast. The multidisciplinary "team" can be of great assistance to the patient in making this decision and deciding on the most appropriate time for reconstruction.

Most patients are satisfied with their external prosthesis after a mastectomy. Others, however, are unhappy with this alternative. Breast reconstruction offers them an approach which can greatly improve "the quality of life".

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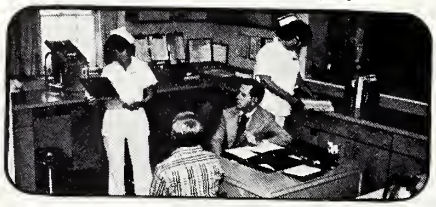

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# Lack of Female Preponderance in High Titers of Rheumatoid Factor

Marion Waller, PhD, Nicholas Joyce-Clarke, MB, BCh, and Anthony Segreti, PhD,
*Richmond, Virginia*

In a retrospective study of sera taken from patients presenting with the clinical features of joint pain, the authors fail to substantitate the assumption that rheumatoid arthritis primarily affects female patients and suggest this impression may reflect the propensity of females to seek medical aid early in their disease.

THE presence of rheumatoid factor in a patient's serum forms one of the criteria for the diagnosis of rheumatoid arthritis, and rheumatoid factor is demonstrable in other disease states.[1] It has been said that the incidence of seropositive rheumatoid arthritis is more prevalent in females than in males. In order to test this assumption, it was decided to investigate the frequency and titer of rheumatoid factor from a laboratory card file.

## Methods

The prevalence of rheumatoid factor in males and females was determined from a card file containing the results of rheumatoid factor tests performed during the past ten years. This file, with cards arranged in alphabetical order, eliminated duplication in repeated testing of any patient.

Rheumatoid factor tests were performed on sera submitted to the arthritis serology laboratory from patients attending the rheumatology clinics and from hospitalized patients at the Medical College of Virginia. In other words, this was a retrospective study of sera taken from patients presenting with the clinical features of joint pain.

The sera from all these patients were tested with two serological tests for rheumatoid factors, the sensitized human cell test (SHC) and the sensitized sheep cell test (SSC).[2] If the SHC was positive at a 1/20 dilution of serum, serial twofold dilutions of the serum were done in order to obtain a titer. This was followed by the performance of the sensitized sheep cell test to allow a rather insensitive but very specific test. The antibody titers obtained by these tests were classified as follows:

| | *Low titer* | *Medium titer* | *High titer* |
|---|---|---|---|
| SHC | 1:20 - 1:80 | 1:160 - 1:640 | >1:640 |
| SSC | 1:20 - 1:40 | 1:80 - 1:160 | >1:160 |

Statistical analysis was accomplished by a test of equality of proportions using the binomial approximation to the normal distribution.

## Results

A total of 10,462 patients' cards were scanned for results of rheumatoid factor tests. Among this popu-

From the Division of Immunology and Connective Tissue Diseases (Dr. Waller and Dr. Joyce-Clarke) and the Department of Biostatistics (Dr. Segreti), Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Waller at Box 263, MCV Station, Richmond VA 23298. Submitted 4-10-80.

lation 31.2% of the patients were male and 68.8% were female. There were 1,923 patients (18.3%) who showed a positive titer of rheumatoid factor. Of these there were 831 (43.2%) males and 1,092 (56.8%) females. Thus, a higher percentage of males was represented in the seropositive group than in the total group. The seropositive group was further divided into three groups according to titer of rheumatoid factor as determined by the SHC test and according to sex as seen in Table 1. Table 2 shows the distribution by sex and titer as a result of the SSC test.

As noted in Tables 1 and 2, not all patients with a positive SHC test were seropositive with the more specific SSC test. Among the male patients who were positive by the sensitized human cell test, there is a progressive increase in percentage from 34.2% in the low titer group to 45.8% in the medium titer group to 50% in the higher titer group. Similarly, the sensitized sheep cell test showed a progressive increase from 44.2% of males in the low titer group, to 46.6% in the medium titer group, to 49.2% in the high titer group. In other words, both tests for rheumatoid factors show a progressive increase in the percentage of males as higher titers of rheumatoid factor are encountered. When these figures are compared to the percentage of males (31%) in the total patient population studied, the differences are significant ($p<.001$).

Based on a statistical analysis, the following conclusions were drawn. Using the SHC test, in the low, medium and high titer groups there was a higher percentage of males than in the general patient population. Using the SSC test, in the medium and high titer group there was a higher percentage ($p<.001$) of males than in the general patient population.

In Table 3 we see that the percentage of males is not only higher in the seropositive population than in the whole patient population, but that among the patients with the highest titers of rheumatoid factors there is no female preponderance.

**Table 1. Results of Sensitized Human Cell Test.**

| | Male | | Female | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Low titers | 192 | 34.2 | 369 | 65.8 |
| Medium titers | 453 | 45.8 | 537 | 54.2 |
| High titers | 186 | 50.0 | 186 | 50.0 |
| Total | 831 | | 1092 | |

**Table 2. Results of Sensitized Sheep Cell Test.**

| | Male | | Female | |
|---|---|---|---|---|
| | Number | Percent | Number | Percent |
| Low titer | 276 | 44.2 | 348 | 55.8 |
| Medium titer | 154 | 45.6 | 184 | 54.4 |
| High titer | 120 | 49.2 | 124 | 50.8 |
| Total | 550 | | 656 | |

**Table 3. Comparison of Male and Female Percentages.**

| | Male | Female | Total |
|---|---|---|---|
| Total patients studied | 3264 (31.2%) | 7198 (68.8%) | 10,462 |
| Seropositive patients | 831 (43.2%) | 1092 (56.8%) | 1,923 |
| SHC: High titer patients | 186 (50%) | 186 (50%) | 372 |
| SSC: High titer patients | 120 (49.2%) | 124 (50.8%) | 244 |

## Conclusions

The exact role that IgM rheumatoid factor plays in the pathogenesis of rheumatoid arthritis remains controversial. Certainly many diseases other than rheumatoid arthritis show the presence of rheumatoid factors. Nevertheless, there is no disease entity in which rheumatoid factor is found with so high a frequency as rheumatoid arthritis, especially when it is present in high titer. The higher the titer of factor, the more value the test has as a diagnostic aid.[3]

The failure of these studies to substantiate the clinical impression of rheumatoid arthritis as a disease primarily affecting female patients may reflect the propensity of females to seek medical aid early in their disease. This is suggested by the higher percentage of females showing low titers of rheumatoid factor. The difficulty of relying on very high titers of rheumatoid factors to confirm a clinical impression of rheumatoid arthritis is that the earliest symptoms may appear before the serologic reaction is manifest. The titer of rheumatoid factor is considered to be an indication of the degree of the rheumatoid disease process. Thus in classic disease characterized by high titers of rheumatoid factor we fail to substantiate a female preponderance.

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# *Mycobacterium Chelonei* Infects the Maxillary Sinus: a Rare Case

Lawrence J. Eron, MD, Cheryl Huckins, MD, Choong H. Park, PhD,
Donald M. Poretz, MD, Howard K. Gelman, MD, and Michael F. Ball, MD,
*Falls Church, Virginia*

A case of maxillary sinusitis due to *Mycobacterium chelonei,* believed to be the first such instance recorded, occurred in a diabetic female. The infection cleared after scraping of the sinus mucosa and administration of erythromycin and kanamycin.

RUNYON'S Group IV atypical mycobacteria, ubiquitous organisms in soil and water, are infrequent pathogens.[1] *Mycobacterium chelonei*, a member of this group, has been reported to cause soft tissue infections in injection sites, corneal lesions, pulmonary disease, prosthetic valve endocarditis, and dissemiated infections. Infections due to *M chelonei* are usually resistant to chemotherapy and often require surgical extirpation.

We present here the first reported case of maxillary sinusitis due to *Mycobacterium chelonei.*

**Case Report**

A 47-year-old diabetic female was admitted to the Fairfax Hospital with left maxillary sinusitis. As a child, while riding a bicycle, she had suffered an injury to the left side of her face resulting in a fracture of the left maxilla and contusion of the superficial soft tissue. For a two-year period prior to admission she complained of left maxillary "congestion" and pain, with periodic bloody, purulent drainage from her left nostril. Radiographs revealed mucosal thickening in the left maxillary sinus.

Four months prior to admission she underwent a Caldwell-Luc procedure at another hospital, and normal sinus mucosa was found, with scarring external to the sinus, possibly secondary to the previous trauma. A second Caldwell-Luc procedure three months later revealed sinus contents "like thick peanut butter." Cultures grew *Citrobacter freundei* and *Klebsiella*. No biopsy was obtained. A short course of intravenous gentamicin and carbenicillin failed to result in sustained improvement. A nasal window into the left maxillary sinus was constructed through which she irrigated her sinus with boiled water and, on at least one occasion, non-sterile well water.

Five days prior to admission mucosal scrapings from the maxillary sinus were obtained through the nasal window. Although the specimens appeared grossly thickened and gelatinous, microscopic examination revealed only squamous epithelialization of normal mucosa without inflammation. Cultures were not done. Because of continued left maxillary congestion, facial pain and headache, she was admitted to the Fairfax Hospital.

From the Division of Infectious Diseases, Departments of Medicine and Microbiology, the Fairfax Hospital, Falls Church, Virginia.

Address correspondence to Dr. Eron at 8318 Arlington Boulevard, Fairfax VA 22031.

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She was afebrile, with a blood pressure of 160/96 and a pulse of 112. Physical exam was normal with the exceptions of swelling and tenderness over the left maxillary sinus and diminished sensory perception in her lower extremities below the knee, thought to be due to diabetic neuropathy.

Her white blood cell count, hemaglobin, sedimentation rate and urinalysis were all normal. Fasting blood sugar was 121, uric acid 9.4, and the remainder of her chemistry profile was normal.

Chest x-ray, skull films and electrocardiogram were unremarkable. Tomograms of the left maxillary sinus showed thickened mucosa without evidence of bony destruction (Fig. 1A). A computerized axial tomogram revealed an air-fluid level within the left maxillary sinus (Fig. 1B).

**Fig. 1A. Tomogram of the maxillary sinuses showing mucosal thickening of the left maxillary antrum (arrow).**

**Fig. 1B. CT scan of the maxillary sinuses showing an air-fluid level in the left maxillary antrum (arrow).**

An empirical trial of trimethoprim-sulfamethoxazole failed to bring improvement. Her facial pain worsened and the white blood cell count rose to 13,000, with 42% polymorphonuclear leukocytes, 4% band forms and 53% lymphocytes. A Caldwell-Luc antrostomy of the left maxillary sinus revealed hypertrophic lining and a cheesey substance within. The sinus mucosa was scraped, and the biopsy tissue sections submitted to the laboratory demonstrated acute and chronic inflammation, with microabscesses surrounded by histiocytes, epithelioid cells and giant cells. The special stain revealed the presence of acid-fast bacilli in histiocytes and giant cells, clustered in microabscesses (Fig. 2). Two days later, the biopsy material grew *Mycobacterium chelonei.* The identification was confirmed by the Bureau of Laboratories, State of Virginia, in Richmond. The disc diffusion method of Dalovisio and Pankey[2] showed sensitivity to erythromycin and kanamycin. The minimum inhibitory concentrations (MIC) of the isolate to both erythromycin and kanamycin were 1.0 ug/ml as determined by Micro-Media system (MIC plate).

She was begun on kanamycin, 750 mg intramuscularly every 12 hours, and erythromycin, 500 mg orally four times a day for 14 days. In addition, 3 mg of kanamycin in 100 cc normal saline was irrigated three times a day through an indwelling infant feeding tube inserted into her maxillary sinus through the nasal window. After discharge she improved at first, but within one month she suffered the onset of facial pain over the entire left side of her face and forehead. She was seen at the University of Virginia Hospital and underwent a left turbinectomy, ethmoid sinus removal and septoplasty. Multiple biopsies of the left maxillary sinus revealed only chronic sinusitis with negative special stains and cultures for mycobacteria and fungi. Routine bacterial cultures were also negative. She was discharged improved but began to experience facial pain again within three weeks. Cultures of the nasal drainage grew *Staph aureus*, and she improved on oral dicloxicillin therapy taken over a one-month period.

## Discussion

*Mycobacterium chelonei*, a rapidly growing Group IV atypical mycobacterium, has been recovered from dust, soil and water.[1] It is of low virulence and is ordinarily considered a colonizer of the human body, as it has been isolated from the nose, throat, saliva, sputum and gastric contents of healthy people.[3] Because of this, it is difficult to determine if the presence of this organism in cultures other than biopsies is indicative of tissue invasion or merely saprophytic colonization. In our patient, the organism was cul-

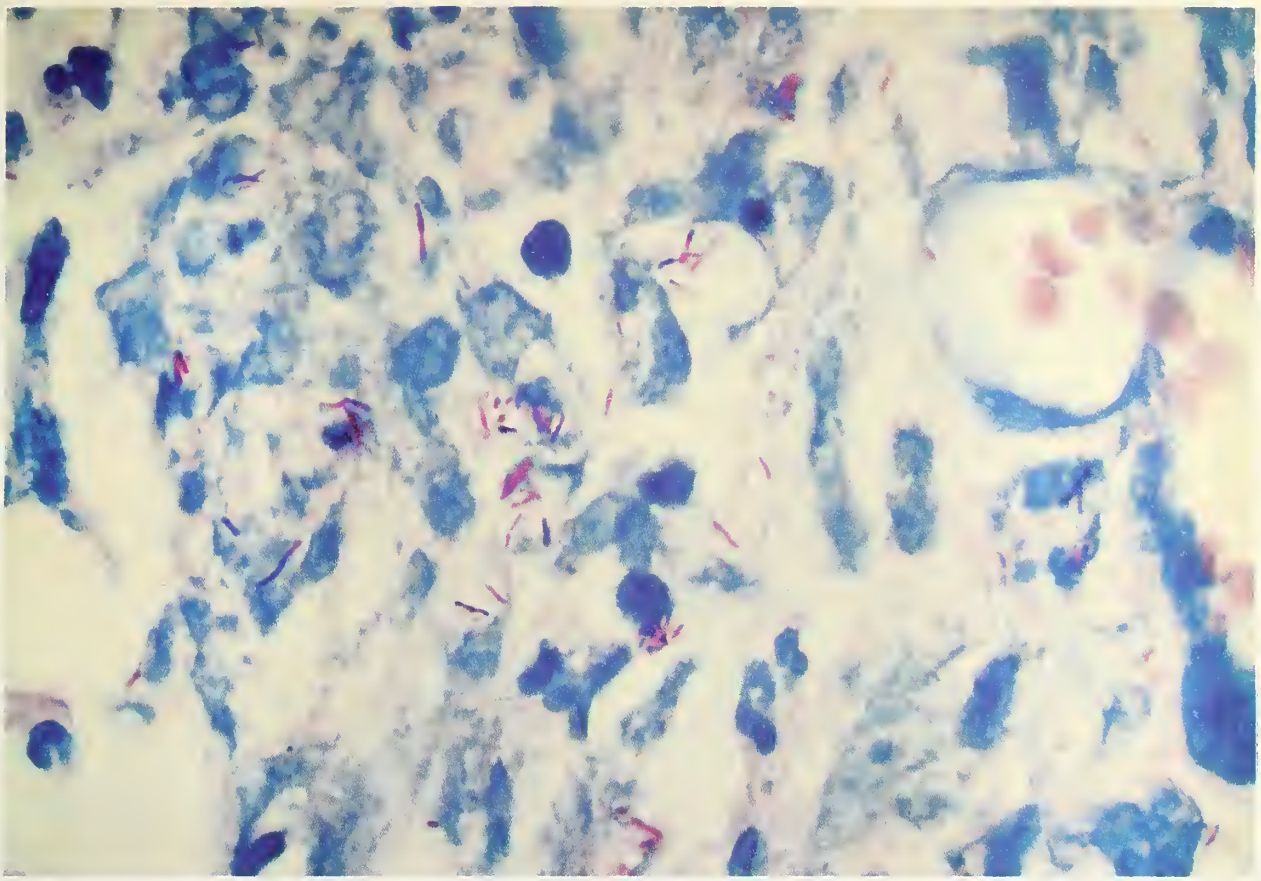

**Fig. 2. Biopsy of the mucosa of the left maxillary sinus showing acute and chronic inflammatory cells as well as acid-fast bacilli (red in color) stained with Kinyoun stain (×1000).**

tured from biopsies of her sinus and acid-fast bacilli were observed within areas of inflammation on histologic section, verifying that the mycobacterium was an invader and not merely a colonizer. The organism may have been inoculated into her sinus by non-sterile well water. It is also possible that her diabetes predisposed her to infection by this organism.

The majority of cases of clinical disease associated with *M chelonei* are soft tissue and corneal lesions secondary to injury, surgical incision or contaminated injection.[1,4,5] More invasive infections by *M chelonei* have been reported in mediastinitis,[6] abscesses of the cauda equina[1] and thyroid,[7] prosthetic heart valve infections,[8,9] and, in renal transplant recipients, disseminated infections.[10]

The patient presented in this case report is of particular interest because it is the first reported case of maxillary sinusitis due to *M chelonei*. The only other reported case of otorhinologic involvement was a 63-year-old male with recurrent otitis media who developed a subperiosteal abscess due to *M fortuitum*, another rapidly growing atypical mycobacterium, following mastoidectomy.[11]

Of all atypical mycobacteria, *M. chelonei* (and *M fortuitum*) are the most resistant to chemotherapy and generally require surgical extirpation of infected tissues to eradicate them.[12] One study of 29 strains of *M chelonei* and *M fortuitum* showed susceptibility of some of the strains to several antibiotics, including ethionamide, viomycin, kanamycin, capreomycin and streptomycin.[1,8] None were susceptible to PAS, isoniazid or cycloserine. Other studies have shown success with amikacin, with 66% of *M fortuitum* and 80% of *M chelonei* sensitive to this drug, as well as with the combination of erythromycin and streptomycin.[7,8,11] The isolate from our patient was sensitive to erythromycin and kanamycin in vitro. A recent study suggested the use of sulfa drugs even though the bacteria were apparently resistant to them in vitro.[10]

Our patient responded symptomatically to a combination of erythromycin administered orally and kanamycin given intramuscularly as well as in a local irrigating solution, following scrapings of the sinus mucosa. The special stains and cultures of subsequent biopsies suggested that combined surgical-

antibiotic therapy was efficacious in eradicating the mycobacterial infection. The use of antibiotics in *Mycobacterium chelonei* infections may be a useful adjunct to surgical approaches to these infections.

The authors wish to thank Dr. Daniel H. Connor and especially Dr. Abe Macher at the Armed Forces Institute of Pathology for their review of the patient's slides. Their personal communication reports that this is the only documented case of maxillary sinus infection by *Mycobacterium chelonei* in the Registry of Geographic Pathology. The authors are also grateful to the Pathology Department of the University of Virginia Hospital for transmittal of the patient's biopsy results.

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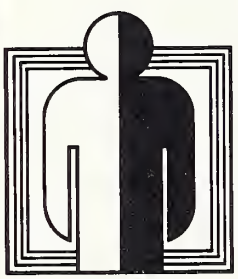

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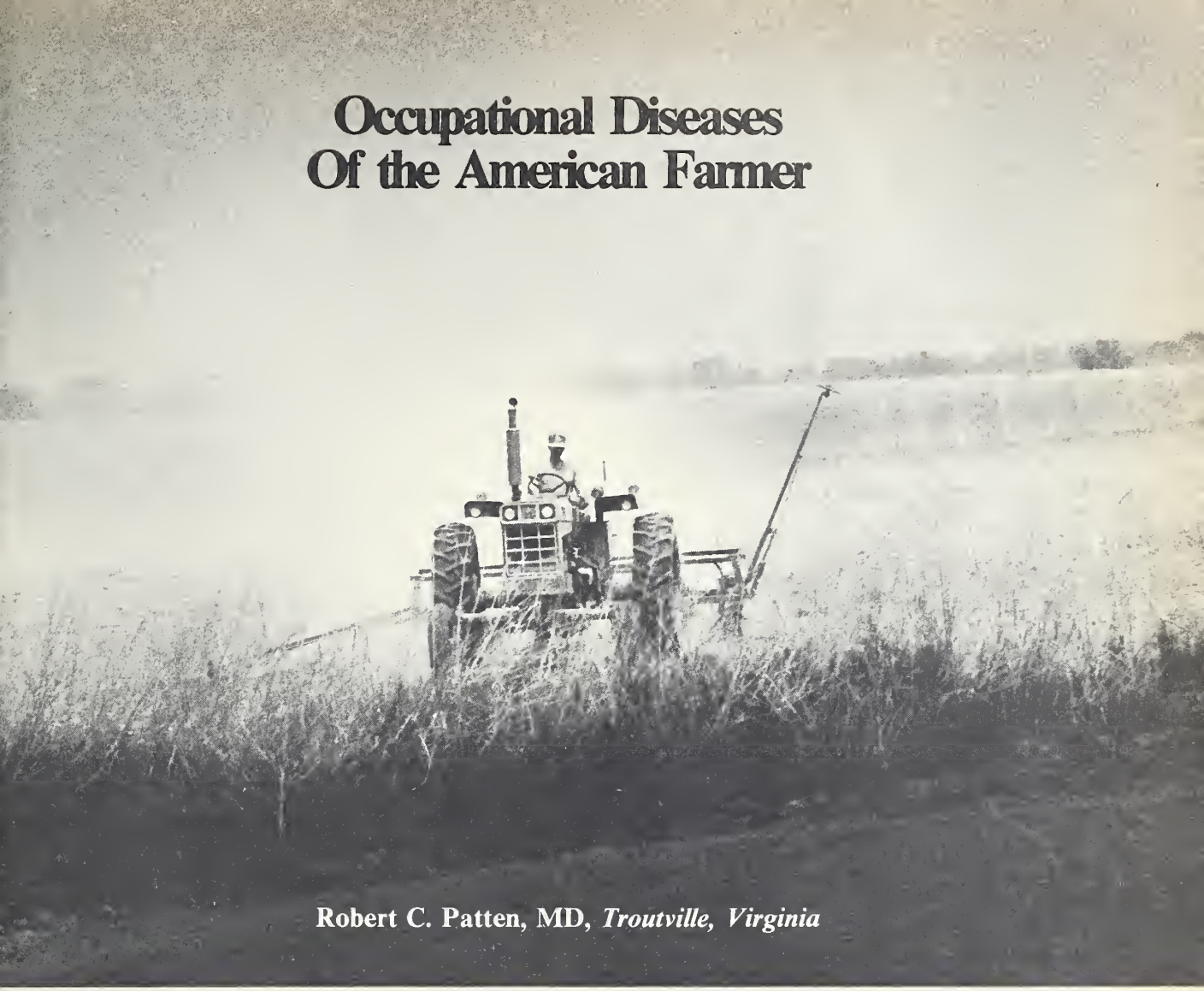
# Occupational Diseases Of the American Farmer



**Robert C. Patten, MD,** ***Troutville, Virginia***

FARM LIFE has been regarded generally as one of man's most healthful endeavors, and the farmer's opportunity to work out-of-doors in clean air and to eat plenty of fresh, homegrown food has been the envy of his urban counterparts. The truth is, however, that farming is a hazardous occupation, with particularly high risk of certain infections and trauma, and these occupational hazards may well have contributed to the widely reported decline of America's farm population. Certainly for the 13 million persons still living on farms in the United States the proliferation of farming machinery and agricultural chemicals markedly increases their health risks.

According to the Public Health Service, the American farmer is at higher risk than others in the following causes of death;

- Leukemia,
- Skin tumors,
- Trauma,
- Physical agents.

**Leukemia**

For many years it has been known that viruses can induce cancer in certain animals. Although infectious agents have been suspected in man, there has been no proof that human cancer is caused by microorganisms. The high incidence of leukemia in farmers has contributed to speculation that there may be a common, possibly infectious, source for human and animal cancer. Sawin, Berg and Donham reported

When this article was written, the author was with the Department of Family Practice, College of Medicine, University of Iowa, Iowa City. He now practices in Roanoke and may be addressed at Route 1, Box 531, Troutville VA 24175.

Submitted 5-8-80.

Photograph courtesy Richmond Newspapers, Inc.

the following association.[1] Acute lymphocytic leukemia is more common in the under-20 age group in Iowa than it is elsewhere. Chronic lymphocytic leukemia in those over 60 is also more frequent in Iowa, especially in the rural counties. Furthermore, acute lymphocytic leukemia is more common among males in those areas where cattle density is highest. It is higher still where dairy cattle are most common and especially so where bovine lymphosarcoma is most prevalent. This evidence certainly suggests an association between leukemia in man and lymphosarcoma in cattle. Thus the farmer may be subjected to this risk because of his occupation.

**Skin Tumors**

As for skin cancer, there seems to be no doubt that prolonged exposure to sunlight increases the risk of it, and the farmer, of necessity, spends much of his time exposed to actinic rays. Certainly squamous cell carcinomas of the sin results from his exposure and perhaps basal cell carcinomas do also.

In Iowa, at least, farmers seem to be at increased risk of multiple myeloma and cancer of the stomach, colon, bones and prostate.[2]

**Trauma**

The farm has been shown to be one of the most dangerous places in the nation. Farming is the third most dangerous occupation, behind only construction and mining, and there are 200,000 disabling injuries and 2,000 deaths per year from farm accidents in the United States.[3] Far and away the leading cause of farm accidents is motor vehicles. This designation includes tractors, with their high propensity for overturning. True, deaths from tractor accidents have been decreasing since 1969, probably due to stuctural changes of tractors, but overturns still account for 52% of tractor accidents.[4] Accidents caused by powered attachments to tractors are less frequent but can be mutilating and lethal.[5] Fatal farm accidents are commonest in late teenage and in the elderly.

Vibration and heavy lifting cause much disability among farmers. A Michigan study reported that 21% of farmers had chronic back pain and 27% had arthritis.[6] Back pain is one of the commonest reasons given for abandoning farming.

Hearing also seems to suffer on the farm. Studies in Michigan[7] showed a hearing loss in farmers above the expected. Presumably this is due to loud noises, such as chain saws and tractors. Interestingly, the left ear is most frequently involved, possibly, the study suggests, because of the habit of looking over the right shoulder when plowing with a tractor.

**Physical Agents**

The American farmer today is exposed to a host of physical agents that were not encountered by his predecessors. Although the apparently non-destructible organo-chlorines, such as DDT, have been taken off the market, a profusion of bug and weed killers remain. Among these, the most dangerous to man are the organo-phosphates and the carbamates. These can be taken into the organism by ingestion, inhalation or surface absorption. Once in the body, they inhibit cholinesterase, allowing a toxic buildup of acetylcholine; this can result in massive over-stimulation of the parasympathetic nervous system, excitation of skeletal muscles, and stimulation followed by depression of the central nervous system. In sufficiently large amounts, death results in man, just as it does in unwanted insects.

Herbicides toxic to man include the following:

- Nitrophenols block transformation of ADP to ATP, resulting in high fever and damage to liver, kidney and central nervous system.
- Chlorphenoxy compounds cause local irritation. 2,4,5 T, a member of this group, was banned because of suspected human abortion.
- Arsenicals are used to kill crabgrass, worm chickens, and defoliate cotton plants and may cause arsenic poisoning.
- Dipyridyl compounds can cause a fatal pulmonary fibrosis.
- Organo-nitrogen compounds can cause skin irritation and sensitization.

Fungicides, fumigants and rodenticides are also commonly used on the farm. Among the most toxic of these are:

- Vacor rodenticide is toxic to the nervous system and causes diabetes by damage to the pancreas.
- Methyl bromide fumigant can cause pulmonary edema and damage to the central nervous system.

Any discussion of physical agents on the farm would have to include anhydrous ammonia, a commonly used fertilizer stored under high pressure. Faulty equipment or mishandling can result in human contact, which can cause severe burns, irreparable damage to eyes and severe irritation to lungs.[8]

Another hazard to the farmer of today is the inclusion of antibiotics in much of the feed for animals. People sensitive to these antibiotics may react when they come into contact with such feeds. Worse still, the feeding of antibiotics to livestock has resulted in strains of antibiotic resistant microorganisms, so that when the farmer becomes infected with bacteria from his animals, these bacteria may have already acquired drug resistance.

Silo filler's disease is a chemical pneumonitis

caused by nitrogen oxides. These are formed by fermentation of vegetable material in places with restricted ventilation, such as the farm silo. These gases are potent oxidizers. Brief exposure can cause pulmonary edema; prolonged exposure can cause asphyxiation. They are present for at least two weeks after silo filling, and the farmer is at risk of death if he enters a silo without protection during this time.[9]

Farmer's lung is a hypersensitivity pneumonitis that can be caused by many antigens. On the farm it is usually caused by the fungi *Thermoactinomyces vulgaris* or *Micropolyspora faeni.* These minute spores, smaller than five microns, easily enter the lung alveoli during breathing. Once in the alveoli of sensitive individuals, they can cause an antigen-antibody reaction characterized by pneumonia with acute exposure and by chronic bronchitis with chronic, low-grade exposure. As many as 10% of farmers working on non-mechanized farms are subject to this disorder. In some, it results in abandoning agriculture as an occupation; in others, protective measures must be used to control symptoms.[10]

An added hazard to the American farmer today is the danger encountered in livestock confinement buildings. With the increase in the cost of labor and land, there has been a trend toward mass production of animals in confined quarters, which, studies have shown, contain high levels of carbon dioxide, methane, hydrogen sulfide, ammonia and dusts. These particles absorb noxious gases and carry them directly to the alveoli.[11] This has been demonstrated to cause acute respiratory symptoms, headache and dizziness. There is suspicion that a chronic lung condition can result.

**Infectious Diseases**

The farmer, due to his prolonged and intimate exposure to animals, has an unusually high risk of acquiring animal infections. In 1974, Dr. Kelly Donham drew up a list of zoonoses to which the farmer was most at risk.[2] These include the following:

| | |
|---|---|
| Brucellosis | Pseudocowpox |
| Leptospirosis | Vesicular stomatitis |
| Toxoplasmosis | Contagious ecthyma (orf) |
| Rabies | Stephylococcal infectious |
| Tetnus | Echinococcus |
| Anthrax | Collibacillosis |
| Erysipeloid | Tularemia |
| Q fever | Acariasis (mite infestation) |
| Histoplasmosis | Pasteurellosis |
| Blastomycosis | Rocky Mountain spotted fever |
| Ringworm | Sporotrichosis |
| Equine encephalitis | Balantidiasis |
| Newcastle disease | |

Some of these diseases are extremely serious and register high mortality rates, for instance, rabies, tetanus, anthrax, equine encephalitis, echinococcus and Rocky Mountain spotted fever. For many there are preventive measures, such as immunization against tetanus, and for others, such as brucellosis and tularemia, there is effective treatment. But the confusing symptoms caused by many of these zoonoses and the frequent ignorance of the physican about zoonotic diseases puts the farmer at added risk.

**Life Style Factors**

Other factors influencing the American farmers's health are remoteness from medical care, lack of medical insurance, and lack of anyone to take over the farm chores when illness strikes. Added to this is the emotional risk of farming; the farmer's higher rate of suicide may attest to the isolation of the farmer's life.

**Treatment Patterns**

Research has revealed curious patterns in the American farmer's attitudes toward sickness and its treatment. A study in California, for instance, reported that among a number of occupations analyzed, farmers showed the highest number os days restricted from work for health reasons; but at the same time, they showed the lowest number of days spent in bed for health reasons.[12] Another study showed that the farmer uses hospital beds more than other groups but visits a physician less frequently.[13]

These patterns reinforce our impression of the farmer as an independent man; perhaps in the area of health, that independence may not work altogether to his advantage.

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*Concluded on page 296.*

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**CONTRAINDICATIONS:** Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

**WARNINGS:** If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

**PRECAUTIONS:** Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

**ADVERSE REACTIONS:** *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

**DOSAGE AND ADMINISTRATION:** Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

**OVERDOSAGE:** Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of January, 1980

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**References:** 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga, M.T. et al: A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs, S. Garattini and R. Samanin, Ed., New York. Raven Press, 1978, pp. 391-404.

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# The CME Experience of Medical Society of Virginia Members: A Statewide Survey

Paul E. Mazmanian, PhD, and Kinloch Nelson, MD, *Richmond, Virginia,* and George M. Nipe, MD, *Harrisonburg, Virginia*

In July 1980 the Council of The Medical Society of Virginia agreed to conduct a study of continuing medical education in Virginia. All members (6,036) were asked to respond to a 64-item questionnaire. After one original mailing and a followup mailing to non-respondents, 3,966 or 65% of the questionnaires were returned. Of these, 105 were eliminated because the respondents were interns, residents, retirees or reported to be dead. The remaining 3,861 represent a response rate of 64% of the Medical Society of Virginia membership.

The questionnaire was designed to provide four major types of data: 1) personal and demographic information, 2) information on the quantity and forms of continuing medical education, 3) information on the cost of CME, and 4) information on CME-related issues.

**Demographic Information**

Table 1 summarizes the responses by age and clinical specialty. Thirty-one percent (31%) were in surgical specialties. Over one-third of the surgeons were in the 36-45 age group. Thirty percent (30%) were in medical specialties. One-third of these were in the 36-45 age group. Other specialties accounted for 22% of the responses. One-third of these were in the 36-45 age group. Family and surgical practitioners made up 17%. Forty-one percent (41%) of the family and general practitioners were over 55 years old. Ninety members did not list a clinical specialty. Fourteen did not state their ages.

Dr. Nipe is immediate Past President of The Medical Society of Virginia; Dr. Nelson the Society's coordinator for continuing medical education; Dr. Mazmanian is assistant director of continuing medical education for the Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Mazmanian at Box 48, MCV Station, Richmond VA 23298.

**Quantity and Forms of CME**

Members were asked to show the hours per week that they spent on several types of learning activities. Almost one-third (32%) spent up to three hours per week on medical reading. Approximately one-half (47%) spent four to six hours reading. Fourteen percent (14%) spent seven to ten hours. Less than 1% spent over ten hours on medical reading.

Fifty-seven percent (57%) spent up to three hours per week in consultation with other physicians. Thirty-one percent (31%) spent four to six hours in consultation, and 12% spent over seven hours. The group of physicians listed as "other specialties" tended to spend slightly more time reading and in consultation than the other three specialty groups.

Seventy-five percent (75%) spent up to three hours per week in clinical conferences. Twenty-one percent (21%) spent four to six hours, and about 4% spent over seven hours per week in clinical conferences.

There were no clear trends in the use of less traditional forms of CME. About 13% spent over four

Table 1. Respondents by Clinical Specialty and Age.

| Specialty | | Under 25 | 25–35 | 36–45 | 46–55 | Over 55 | Total |
|---|---|---|---|---|---|---|---|
| Family/General | * | 0 | 121 | 88 | 171 | 267 | 647 |
| Practitioners | ** | 0 | 3 | 2 | 5 | 7 | 17% |
| | *** | 0 | 19 | 14 | 26 | 41 | |
| | **** | 0 | 20 | 8 | 17 | 26 | |
| Medical Specialty | | 0 | 211 | 367 | 273 | 269 | 1120 |
| (e.g., pediatrics, internal medicine, | | 0 | 6 | 10 | 7 | 7 | 30% |
| dermatology, cardiology | | 0 | 19 | 33 | 24 | 24 | |
| | | 0 | 35 | 33 | 27 | 26 | |
| Surgery Specialty | | 1 | 138 | 405 | 326 | 285 | 1155 |
| (e.g., general surgery, ob/gyn, | | 0 | 4 | 11 | 9 | 8 | 31% |
| ophthalmology) | | 0 | 12 | 35 | 28 | 25 | |
| | | 100 | 23 | 36 | 32 | 28 | |
| Other Specialties | | 0 | 132 | 257 | 236 | 210 | 835 |
| (e.g., pyschiatry, radiology, | | 0 | 4 | 7 | 6 | 6 | 22% |
| anesthesiology, pathology) | | 0 | 16 | 31 | 28 | 25 | |
| | | 0 | 22 | 23 | 23 | 20 | |
| Total | | 1 | 602 | 1117 | 1006 | 1031 | 3757 |
| | | 0 | 16% | 30% | 27% | 27% | 100% |

* Number of respondents; ** percent of total respondents; *** percent of specialty; **** percent of age group.

hours per week listening to audio tapes. About 20% spent more than four hours on correspondence or self-assessment programs, and about 5% spent over four hours per week on medical audit activities.

Medical Society of Virginia members generally (63%) complete less than half of their CME in the hospital setting. Half the physicians (50%) said the lack of relevance to their practices was an important deterrent to their CME participation, but lack of time (69%) and costs (70%) were the most important reasons. Lack of local programs (59%), the quality of CME in general (65%), and getting coverage in their absence (56%), were less important reasons for non-participation.

When asked what types of learning activities they preferred, the membership indicated a high preference (96%) for reading journals and books (Table 2). Medical school sponsored programs (89%), combined annual and scientific meetings of medical or specialty societies (88%), and national scientific meetings (88%) were also high preferences. Less preferable (80%) were in-hospital programs, such as tumor conferences, lectures, or CPCs. Fewer physicians preferred combined resort and travel programs (59%), correspondence programs (54%), audiotapes (50%), video-tapes (39%), and traineeships (32%). The least desirable (30%) format was committee work in patient care evaluation.

## Costs of Continuing Medical Education

Table 3 summarizes the responses to the question of how much money they spent to attend formal CME programs during 1979. It shows that most physicians (53%) spent $100-500 on tuition, fees and other direct costs. About 10% spent over $1,000 on tuition and fees. Nearly a third (31%) spent between $500 and $1000 on travel. Nearly two-thirds (62%) spent between $100-500 on books, journals and self-assessment materials. The average income lost from practice was $1,175. About 30% lost $100. Another 30% lost over $2000. To MSV members in 1979, the average costs of CME were about $3,000.

Table 2. Preferred Learning Formats.

| | Degree of Preference | | | Total Respondents |
|---|---|---|---|---|
| | High | Medium | Low | |
| In-hospital programs (tumor conferences, lectures, CPCs) | 44% | 36% | 20% | 3,698 |
| Committee work in patient care evaluation | 07% | 23% | 70% | 3,654 |
| National scientific meetings | 54% | 34% | 12% | 3,678 |
| Combined annual and scientific meetings of medical/professional societies | 55% | 33% | 12% | 3,679 |
| CME courses of medical schools | 51% | 38% | 11% | 3,698 |
| Resort/travel/education meetings | 23% | 36% | 41% | 3,676 |
| Clinical traineeships/mini-residencies | 11% | 21% | 68% | 3,584 |
| Correspondence courses | 19% | 35% | 46% | 3,646 |
| Videotapes | 08% | 31% | 62% | 3,608 |
| Audiotapes | 16% | 34% | 50% | 3,664 |
| Reading journals and books | 61% | 34% | 05% | 3,719 |

Forty-two percent (42%) indicated that the costs for tuition, fees and other direct costs of CME programs were excessively high. Thirty-eight percent (38%) said the costs were high but justifiable. Nineteen percent (19%) said costs were reasonable. Less than 1% said costs were lower than expected.

Nearly all (89%) MSV members thought that physicians themselves should pay for CME through tuition and fees. Sixty-eight percent (68%) said hospitals should fund CME. Sixty-three percent (63%) said private foundations should be a source of funding. More than half (56%) indicated that medical schools and state and county medical societies should fund CME. Fifty-one percent (51%) said pharmaceutical companies should fund CME. Forty-seven percent (47%) said the American Medical Association should be a source of funding. Insurance companies (28%), the federal government (23%), and the state government (22%) were least preferred funding sources.

**Table 3. Tuition, Travel, Books and Indirect Costs of Participation in Formal CME Programs for 1979.**

| Tuition Fees and Other Direct Charges | Total (N = 3674) |
|---|---|
| $0–$100 | 12% |
| $100–$500 | 53% |
| $500–$1000 | 26% |
| $1000–$2000 | 8% |
| Over $2000 | 2% |
| | Average = $516.29 |
| **Travel Expenses** | **Total (N = 3661)** |
| $0–$100 | 11% |
| $100–$500 | 24% |
| $500–$1000 | 31% |
| $1000–$2000 | 24% |
| Over $2000 | 10% |
| | Average = $927.53 |
| **Indirect costs (Lost Income From Practice)** | **Total (N = 3556)** |
| $0–$100 | 29% |
| $100–$500 | 9% |
| $500–$1000 | 13% |
| $1000–$2000 | 19% |
| Over $2000 | 30% |
| | Average = $1,175.28 |
| **Books, Journals, Self-Assessment Courses** | **Total (N = 3659)** |
| $0–$100 | 23% |
| $100–$500 | 62% |
| $500–$1000 | 13% |
| $1000–$2000 | 3% |
| Over $2000 | .8% |
| | Average = $348.76 |

Sum Total Costs/Cat. ($10,744,050)/Average N (3638)
Average Costs/Physician in 1979 = $2,953.28

### Related Issues

When asked, "Do you believe that CME should be mandatory under any circumstances?", 63% replied in the affirmative; 35% in the negative; 2% did not respond.

Of the 63% who favored a CME requirement, 60% favored it for periodic registration of the license to practice. Sixty percent (60%) favored it for membership in the state medical society. Seventy percent (70%) said it should be required for membership in the individual's specialty society. Seventy-one percent (71%) said CME participation should be mandatory for hospital staff privileges.

When asked, "If there were to be an evaluation requirement for periodic registration of licenses, would you prefer that it be done by: 1) examination, 2) CME, 3) practice audit, 4) evidence of specialty board recertification, or 5) other?", 49% chose participation in continuing medical education. Fourteen percent (14%) preferred specialty board recertification. Thirteen percent (13%) selected practice audit. Four percent (4%) preferred some other method. The most frequent suggestions in the category "other" were peer review, including the observation of the physician in practice, and review by professional hospital boards. Sixteen percent (16%) did not respond to this question.

### Summary

The high response rate (65%) suggests that Medical Society of Virginia members are concerned with continued learning in medicine.

The typical member spends between four and six hours per week on medical reading and up to three hours per week in clinical conferences and medical consultation with other physicians.

As a CME activity nearly all the respondents indicated a high preference for reading medical books and journals. Medical school sponsored programs and scientific meetings were also highly regarded. Most members spent between six and 15 days away from practice to attend CME programs in 1979.

Two of every three members completed less than half their continuing education in the hospital setting. In general, members did not feel that there was a lack of quality CME available and obtaining coverage to attend CME programs did not appear to be a major problem. Lack of time and the costs of CME were significant deterrents to physician participation. The average cost of CME was about $3,000 per member in 1979. Many members felt that the direct costs of CME were excessive, but most believed that the costs were reasonable and justifiable.

In general, the MSV membership supports CME. The typical member believed that physicians should pay tuition and fees for formal CME programs. He was also likely to believe that insurance companies and state and federal government should not be a

*Continued on page 296.*

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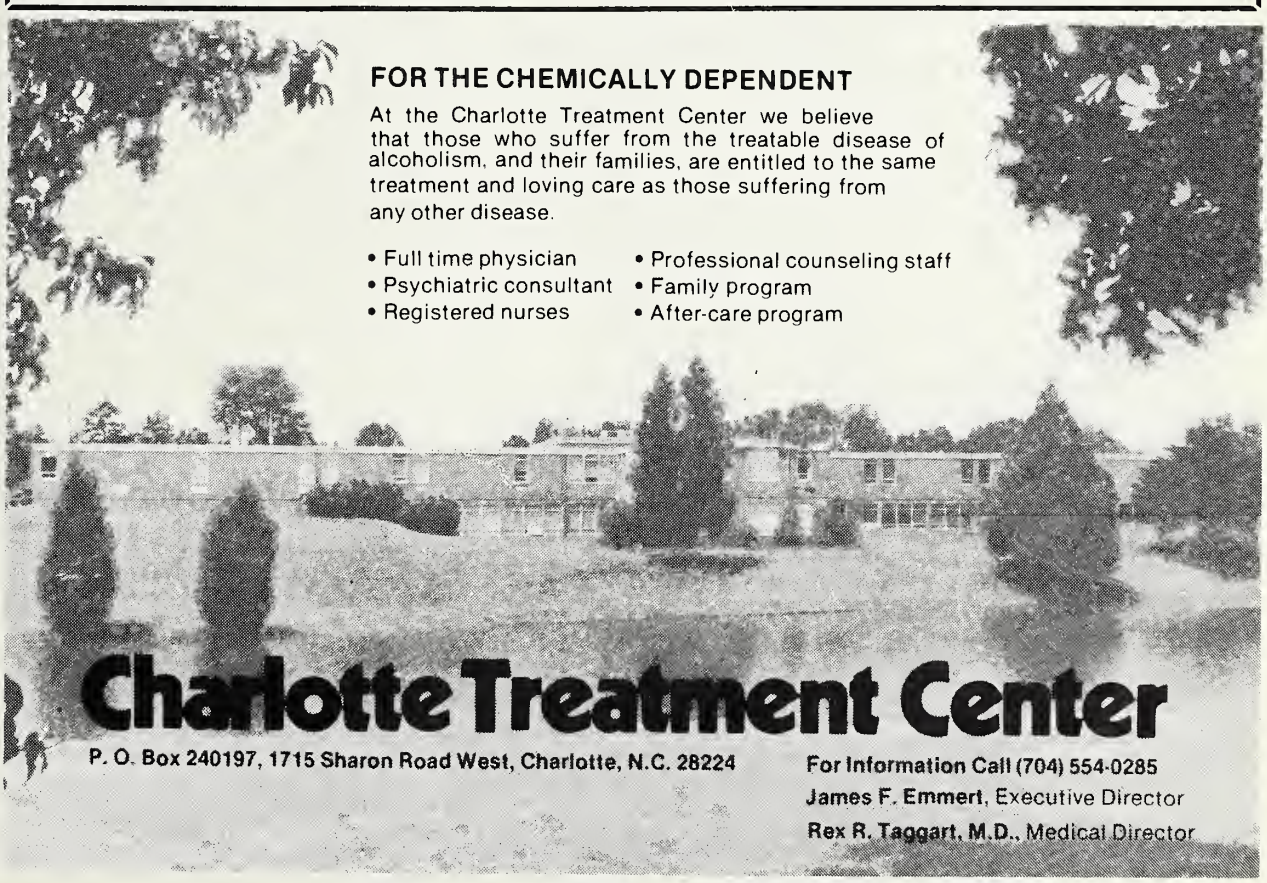
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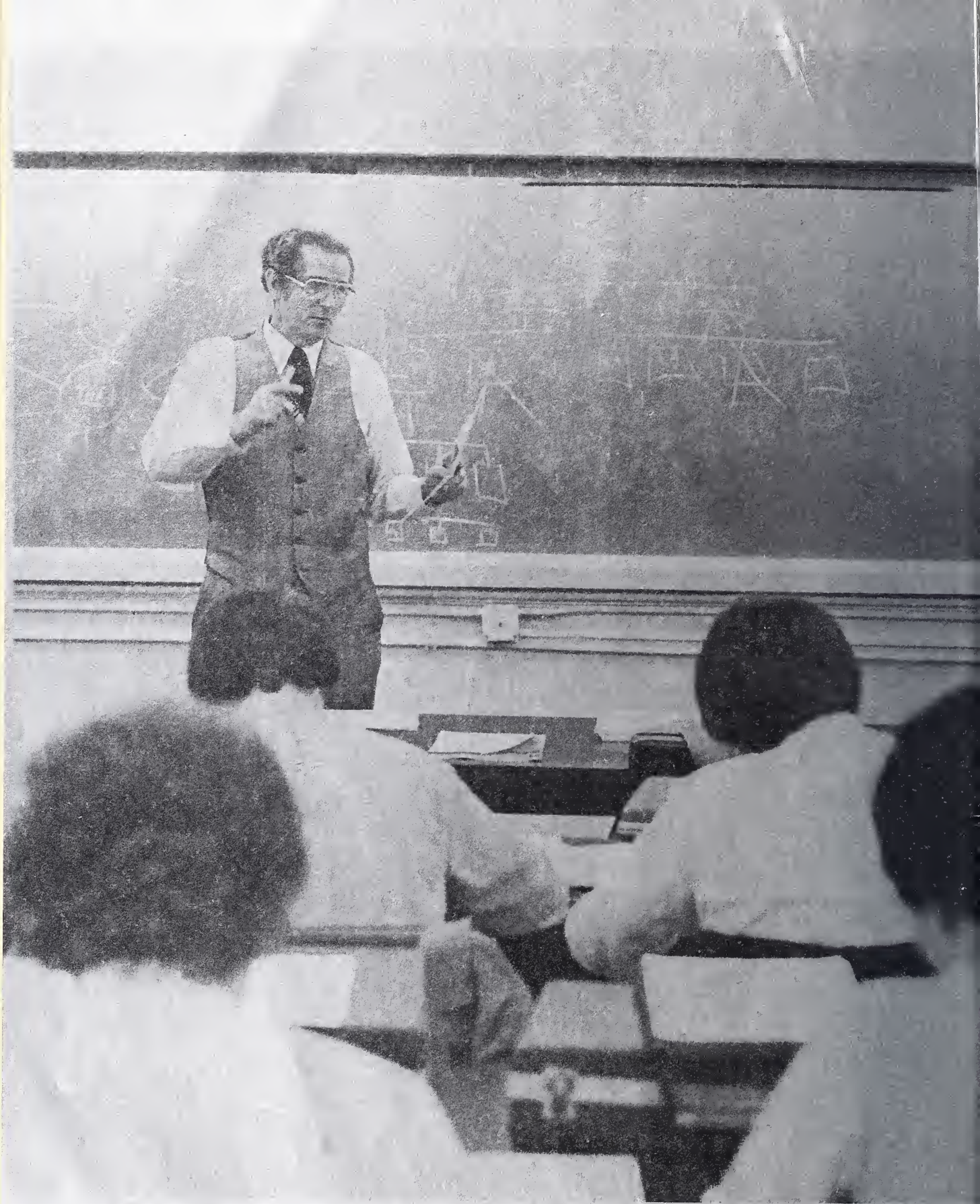

VIRGINIA MEDICAL
EDITORIAL

# In the Classroom: A Cost Accounting

"NO PROBLEM facing the health care system today is more pressing than the rising cost of medical care."[1] That's a large statement, given the number of complex problems that besiege the practice of medicine today. But as the media daily attests, our society is indeed profoundly concerned about escalating medical costs, and such concern challenges corrective action.

Government response has consisted largely, as might be expected, of regulatory interventions. These are aimed at supply control, such as certificate of need; or market reform, such as consumer cost sharing; or incentive reimbursement by third-party payors, such as the proposal to reimburse for an illness not according to itemized expenditures but in a lump sum according to diagnosis. All these national strategies are supported or opposed by vested interest groups, and all find their primary focus in hospitals and physicians.

The focus is warranted. Over 40% of the medical care dollar is associated with hospitalization, and most of the nation's medical expenditures are determined, directly or indirectly, by physicians.[1,2]

Moreover, the physician, rightly trained to venerate quality of care, fears a diminution of quality if cost weighs heavily on his every decision. It is even charged by some that physicians have little or no knowledge of the costs of the tests, procedures and hospitalizations they order, a charge here and there given some vindication.

For example, in Fairfax County, Virginia, recently, when 250 physicians were given a list of common medical procedures and asked to fill in the costs, they guessed wrong six out of ten times, scoring poorly despite a 25% plus-or-minus allowance for error.[3] (The dismaying results served to launch a campaign by the Fairfax County Medical Society to educate its members to specific costs.)

Some education would seem to be in order, and that is precisely what the Medical College of Virginia is undertaking, in a new program of instruction in medical cost containment designed to begin raising the physician's cost consciousness in his formative student years.

Although 41 of the 119 medical schools over the country have such programs on the planning boards or underway, only a few have been in place long enough to develop a definitive experience. Best documented of these pioneers is the program of the Medical College of Ohio at Toledo. Analyzing four years of experience there, investigators report that the main value of the program seems to be "making explicit and systematic a behavior that has been implicit and less structured when physicians have been informally reviewing themselves and each other in practice."[4] The assumption that students who are made aware of

costs and their evaluative significance will then monitor their own performances more carefully as practitioners remains to be substantiated, but certainly this method of teaching cannot lessen the almost complete ignorance of costs under which most medical graduates have been entering practice.

The original intent of the Medical College of Ohio program seems to have been to acquaint medical students with the Professional Standards Review Organization, but discussions of costs, particularly diagnostic tests, came to take a prominent role in the curriculum. In this connection, a study revealed students to be abysmally ignorant of the costs of 31 tests listed on a questionnaire, with only some 30% of the answers ranging within 25% of the actual costs—results notably similar to the test scores of Fairfax physicians cited earlier.

No correlation could be found by these investigators between the knowledge of costs and the length of time the student had been in medical school, indicating that third-year students who actually ordered the tests and followed their use in clinical medicine had no more familiarity with costs than their pre-clinical colleagues in the first and second years of schooling.[5] This finding has been substantiated at the Medical College of Virginia.[6]

The concept of the physician as the "generator of costs" was investigated in the Medical College of Ohio program by comparing the costs of hospitalization as administered by physicians from differing specialties.[7] Internists consistently provided more expensive care than family physicians, and cardiologists were shown to provide less costly care than either internists or family physicians. An awareness of such differences, the study suggests, may encourage students to watch their own cost effectiveness more carefully when they become practitioners.

Toward the goal of such a vigilance in its graduates, the Medical College of Virginia will soon initiate organized instruction in cost-effective medical care through a program made possible by grant money from the National Fund for Medical Education and sponsored by the W. K. Kellogg Foundation and Blue Cross-Blue Shield of Virginia.[8] To be phased into the curriculum in the coming two years is a continuum of teaching commencing in the first year of medical school and progressing through undergraduate, graduate and postgraduate levels.

The didactic curriculum for first- and second-year students (M-I and M-II) will be modified to include the basic economics of health care delivery, concepts of cost containment, alternative and most cost-effective modes of care, societal concerns with health care costs, and the relevancy of physician determinations to these relationships.

Reinforcement and relevancy will be emphasized in the third and fourth years (M-III and M-IV), when teaching-learning experiences will be related to clinical activities. Practical applications and modes of care will be demonstrated through electives, case management simulations, peer review and other group activities.

The process will be continued in graduate medical education. Cost considerations will be introduced through patient rounds, conferences, peer review, and simulated case management, and cost reminders will be built into the computerized ordering procedures of the hospital medical information system. Relevancy will be shown through instruction in the "business" of medical practice and the alternatives and resources available in that context.

Specific CME programs will be developed to initiate or reinforce cost-conscious attitudes in practicing physicians and will include pertinent information on legislative and regulatory programs affecting the practice of medicine.

And when the grant-supported period is over, it is expected that instruction in medical costs as they affect both the patient and the nation will be continued as an integral part of the Medical College of Virginia educational program.

R. W. Jessee, MD
F. J. Spencer, MD

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From the Department of Preventive Medicine, Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Jessee at Box 212, MCV Station, Richmond VA 23298.

# VIRGINIA MEDICAL OBITUARY

## C. J. Murphy, Jr., MD

Dr. Christopher J. Murphy, Jr., past president of both the Alexandria Medical Society and the Virginia Obstetrical and Gynecological Society, died March 3 at an Alexandria hospital. He was 62 and had practiced obstetrics and gynecology in Alexandria for 30 years.

Born in Washington, DC, Dr. Murphy earned his medical degree at George Washington University and trained at Georgetown University Hospital, Washington Hospital Center and Alexandria Hospital, then served as chief of the obstetrics and gynecology staff at the US Air Force Regional Hospital, Scott Field, Illinois.

Dr. Murphy was a member of the American College of Obstetricians and Gynecologists and the American College of Surgeons. He was a long-time member of The Medical Society of Virginia and served on several committees and as a member of the House of Delegates.

## Andree W. Zalis, MD

Dr. Andree W. Zalis, Richmond, died February 25 at the age of 54. She was chief of rehabilitation medicine at McGuire Veterans Hospital from 1973 to 1980 and an associate professor of rehabilitation at the Medical College of Virginia for the past seven years.

Born in France, Dr. Zalis earned her medical degree from the University of Strasbourg. After moving to this country in 1954, she trained at the Michael Reese Hospital in Chicago and then taught at Northwestern and Loyola Universities before coming to McGuire's in 1971.

Her husband, Dr. Orestes S. Zalis, who survives her, is also a physician.

## J. F. Chairsell, Jr., MD

Dr. Julius Frederick Chairsell, Jr., Arlington, died February 10 in Arlington Hospital at the age of 69. He had retired from the general practice of medicine in January 1979.

Born in Birmingham, Alabama, Dr. Chairsell moved to Richmond at an early age. He did his undergraduate work at the University of Richmond and obtained his medical degree from the Medical College of Virginia in 1938, then interned at Hillman Hospital in Birmingham, Alabama, and at the New Altamont Hospital in Christiansburg, Virginia. He entered the Army Air Corps as a flight surgeon in the Medical Corps in 1942 and served in the China-Burma-India theater, in the Yukon and in Africa. On his return to civilian life, he practiced medicine in Radford, Virginia, moving to Arlington in 1956.

Dr. Chairsell belonged to The Medical Society of Virginia for nearly 40 years. He was a member also of the American Medical Association, the American Academy of Family Physicians and the Arlington County Medical Society.

## Walter S. Newman, Jr., MD

Dr. Walter S. Newman, Jr., a Lexington radiologist, died February 26 at the age of 58. He was past president of the Rockbridge County Medical Society and a long-time member of The Medical Society of Virginia.

A graduate of Hampden-Sydney College, Dr. Newman earned his medical degree from the Medical College of Virginia and received his training in radiology from Touro Infirmary in Los Angeles and Georgetown University in Washington DC.

A native of Christiansburg, Dr. Newman's father was the late Dr. Walter S. Newman, president emeritus of Virginia Polytechnic Institute.

## Bertram F. Townsend, MD

Dr. Bertram F. Townsend, Newport News, died on March 27, 1980, at the age of 60 years. His specialty was anesthesiology, and he was a graduate of the Duke University School of Medicine.

## Oscar Lee Hite, MD

Dr. Oscar Lee Hite, who had practiced internal medicine in Richmond for more than half a century, died March 20 at the age of 86.

A native of Halifax County, Dr. Hite served in France during World War I and was graduated from Richmond College, now the University of Richmond, in 1922. He then earned his medical degree from the Medical College of Virginia.

He served as chairman of the staff of Johnston-Willis Hospital for 15 years and had also served as

physician for the Richmond Baptist Home, the Southern Baptist Foreign Mission Board, the Richmond Home for Boys and the University of Richmond.

A member of The Medical Society of Virginia for 49 years, Dr. Hite also belonged to the Richmond Academy of Medicine and the American Medical Association.

## William C. Holt, MD

Dr. William Cary Holt, MD, a general practitioner living in Angleton, Texas, died January 4 at the age of 78. A graduate of the University of Virginia School of Medicine, Dr. Holt had been a member of The Medical Society of Virginia for 54 years and belonged also to the American Medical Association.

# Memoir of H. J. Hagan, Jr. 1918-1980

*By William W. S. Butler, III, MD, Hugh H. Trout, Jr., MD, and W. Conrad Stone, MD*

Hugh Johnson Hagan, Jr., was born in New Jersey in May 1918. His parents were stationed in New Jersey on Active Duty with the Army at that time, during World War I.

Hugh went through the public schools in Roanoke and then to Hampden-Sydney College where he graduated in 1940. He received his MD from the Johns Hopkins University School of Medicine in 1943. The accelerated program allowed him to intern at Bellevue Hospital in New York City for a short year prior to his entrance into the Army. He served with distinction in the European Theatre and returned to Bellevue in 1946. He completed the residency in internal medicine in August 1949 and then went into practice with his father in Roanoke. His brother, Robert, joined them a year later.

Shortly after this family partnership was in place, Dr. Hagan, Sr., was disabled by a stroke due to cerebrovascular disease. Unfortunately, it was only a few years later that Hugh developed diabetes and had severe vascular complications that eventually led to his demise on September 12, 1980 at the age of 62 years.

This was a great loss to his family and to us who were his medical associates. It was also a great loss to his patients, all of whom were his personal friends. He was an astute and keen internist who took good care of his patients. He was a patron of many arts but had little time to enjoy them. He was a raconteur of considerable note and a most enjoyable companion.

His son, Hugh, received his MD from the University of Virginia School of Medicine this year. He is also survived by his wife, Alice, and three daughters: Alice Trout Hagan, Ellen Willis Hagan and Catherine Cramer Hagan.

He was a member of St. John's Episcopal Church of Roanoke, the Medical Staff of the Community Hospital of Roanoke Valley, the American Medical Association and the Medical Society of Virginia.

Prepared and published at the request of the Roanoke Academy of Medicine.

# Memoir of R. C. Hagan 1922-1980

*By Charles B. Bray, MD, Robert L. A. Keeley, MD, and Robert S. Hutcheson, Jr., MD*

Dr. Robert Cameron Hagan, 58, died in a Roanoke hospital Friday, September 12, 1980, hours after the death of his brother, Dr. Hugh Hagan, Jr., 62. Dr. Robert Hagan was born in Roanoke and graduated from Hampden-Sydney College and Johns Hopkins Medical School. He served his internship at Bellevue Hospital, in New York City, and his internal medicine residency at the University of Maryland Hospital, in Baltimore.

Dr. Hagan served as a captain in World War II, in the Pacific, and served in the US occupation of Japan. He was a member of the Roanoke Academy of Medicine, The Medical Society of Virginia and the AMA. He served on the vestry of St. John's Episcopal Church and on the board of directors of McVitty House.

Dr. Robert Hagan is survived by his wife, Lilian Brown Hagan; three daughters: Mrs. Boyd Johnson, Mrs. John Heil and Ann Forrest Hagan; and a son, Robert C. Hagan, Jr.

Dr. Robert Hagan, a deeply religious man, was an active member of his church. His commitment to mankind was exemplified in his unusual dedication to the care of his patients throughout his life. His kindness and medical skill endeared him to all, and his death leaves an empty place in the lives of his patients, associates and friends that cannot easily be filled.

Prepared and published at the request of the Roanoke Academy of Medicine.

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# WHO'S WHO

Dr. W. T. **Thompson, Jr.,** and **Dr. William M. Eagles,** both of *Richmond,* have been nominated as delegates to the 1981 White House Conference on Aging by Virginia's Senator Harry F. Byrd. Dr. Thompson is Editor of VIRGINIA MEDICAL. The national meeting of the conference is scheduled for November 30 to December 3 in Washington, DC, with regional hearings preceding late in the summer.

This will be the fourth White House Conference on Aging since 1950. The goal is to "confront both short-term and long-range issues of concern to an aging society and to obtain recommendations and direction for responsive public action."

To **Dr. Donald M. Poretz,** *Fairfax,* went the 1981 Young Internist of the Year award of the Virginia Society of Internal Medicine at its recent annual meeting at the Homestead. The award is given selectively to an internist who has made a major contribution to the socioeconomic aspects of medical practice. Dr. Poretz was recognized for the innovative program he developed to provide prolonged antibiotic therapy on an outpatient basis, obviating lengthy hospitalization. Under Dr. Poretz's plan the therapy costs about $40 per day, whereas the average cost per day in hospital would be about $250. More than 65 patients have been treated under this cost-effective program.

A medical article coauthored by Dr. Poretz appears on page 335 of this issue.

At the same meeting the Virginia internists elected these new officers: **Dr. John B. Catlett,** *Richmond,* president; **Dr. Gary E. Glontz,** *Roanoke,* president elect; **Dr. George L. Fischer,** *Clifton Forge,* vice president; and **Dr. William C. Branscome,** *Staunton,* secretary-treasurer.

The directory of component medical society officers published in last month's Virginia Medical listed **Dr. Barbara Mella** as the new president of the Fairfax County Medical Society, but what could not be related because of the directory's format is that Dr. Mella is the first female president of the Fairfax Society since 1934, when **Dr. Alice H. Kiessling** was president. Dr. Mella, a neurologist practicing in Fairfax City, is a graduate of the University of Virginia, where she is now a clinical neurologist; she is also a consulting neurologist for the Department of State and director of the Crippled Children Northern Virginia Neurology Clinic.

Elected to serve with Dr. Mella were **Dr. David E. Robinette,** president elect, and **Dr. Ian M. Shenk,** secretary.

The University of Virginia's board of visitors at a meeting early this year elected **Dr. Norman J. Knorr** as James Carroll Flippin Professor of Medical Science and **Dr. Guy M. Harbert, Jr.,** as Mamie A. Jessup Professor in Obstetrics and Gynecology. Dr. Knorr, a psychiatrist, is dean of the School of Medicine. Dr. Harbert is a maternal-fetal specialist who has done considerable research on toxemia.

A plaque in recognition of his years of service to the Alexandria Medical Society and the community was presented to **Dr. Harry C. Kuykendall** by the society at its annual dinner dance meeting early this year. At the same meeting officers for the coming year were introduced by the retiring president, **Dr. Hernando Salcedo.** They are **Dr. James W. Preuss,** president; **Dr. Donald D. Haut,** president elect; **Dr. John P. McDade,** vice president; **Dr. Robert S. Rixse,** secretary; and **Dr. John P. Tokarz,** treasurer.

Elected to fellowship in the American Academy of Pediatrics at its recent meeting in Detroit was **Dr. George T. Sproul,** *Staunton.*

After a long time of doctoring, including 14 years as a medical missionary in Tanzania, **Dr. Merle Eshelman** closed the office in his home near Eastern Mennonite College, *Harrisonburg,* early this year and began adjusting to a life of retirement. According to a feature story in the Harrisonburg *Daily News-Record,* he wants to write about the unusual cases he's attended, most of them encountered in Tanzania, where injuries inflicted by hippopotamuses are part of the case load, but some, too, experienced during his 25 years as a family practitioner in the Shenandoah Valley.

After graduation in 1933 from Temple Medical School in Philadelphia and a year's internship there, Dr. Eshelman headed for East Africa, there to work both as an ordained Mennonite minister and as a physician. He served at Sherati Hospital, a mission facility on Lake Victoria 50 miles from the nearest government hospital, and he was only the third doctor to work there. He treated patients injured by leopards, crocodiles, baboons, snakes and the cited hippopotamuses. And there were, of course, assorted tropical diseases, such as malaria, to cope with, as well as wide-spread malnutrition. He began also to help the

hundreds of lepers in the area; when he left he was treating nearly 400 lepers a week.

In 1973, the Virginia Mennonite Home, where Dr. Eshelman was house physician 21 years, honored him with a citation, and three years later he was given the Doctor of the Year award of the Mennonite Medical Association.

**Dr. Norman R. Tingle,** *Lively,* was recently given the Outstanding Citizen of Lancaster County award by the Kilmarnock-Irvington-White Stone Rotary Club. Dr. Tingle was one of four Northern Neck physicians featured recently in *Medical Economics* in a story about the quartet's "BBLT Club" for continuing medical education. The account first appeared in VIRGINIA MEDICAL (Who's Who: Va Med 106:773, 1979), when the BBLT Club's members were Dr. Tingle, **Dr. J. Motley Booker, Dr. Melvin B. Lamberth, Jr.,** and the late **Dr. C. Leonard Booker,** who died last year.

**Dr. Maurice S. Vitsky,** *Richmond,* has been elected president of the Richmond Obstetrical and Gynecological Society.

The Alexandria Hospital recently elected as president of its medical staff **Dr. Ludovic J. DeVocht,** and as president of its board of directors **Dr. Robert L. Bregman.**

## Big Wheel

When Dr. Percy Wootton wants to get away from being Medical Society of Virginia President, cardiologist, tree farmer and church elder, plus multiple other demanding roles, he mounts his trusty 3-speed Varsity and bicycles about Richmond's West End with his three children, Jane Meredith, Madison and Anne. "Bicycling makes me feel better," Dr. Wootton explains, "and you see all your neighbors, and when we stop at the corner gas station's air pump we always run into some friends who are out bicycling, too." Dr. Wootton's alma mater, Lynchburg College, published a profile of him recently in its lively newspaper *Update* and asked VIRGINIA MEDICAL to have this picture taken to go with it.

*Photograph by Melissa Grimes*

# VIRGINIA MEDICAL CLASSIFIED

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VIRGINIA MEDICAL

June 1981, Volume 108, Number 6

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## *At Council Meeting: Mr. Moore Nominated, AMA Actions Endorsed*

THE NAME of James L. Moore, Jr., has been placed in nomination as the successor to The Medical Society of Virginia's longtime Executive Vice President, Robert I. Howard, who has retired effective December 31, 1981. The nomination was announced by MSV President Percy Wootton at a meeting of Council late in April and was made on the recommendation of a Search Committee, whose members had considered a number of candidates for the post.

The nomination will be placed in the hands of the Nominating Committee, which will refer it to the House of Delegates on October 24 during the 1981 Annual Meeting in Norfolk. Since the post is an elective office, the House will make the final decision as to the nomination.

Mr. Moore has been Mr. Howard's administrative assistant for 14 years; his responsibilities have carried particular emphasis in the areas of membership and insurance.

*James L. Moore, Jr.*

The Search Committee was composed of the five immediate Past Presidents: Dr. Raymond S. Brown, who chaired the committee; Dr. George M. Nipe, Dr. Charles E. Davis, Jr., Dr. William J. Hagood, Jr., and Dr. W. Leonard Weyl.

Dr. Wootton also presented a resolution in commendation of Mr. Howard to be introduced by the Virginia delegation at the meeting this month in Chicago of the AMA House of Delegates. "During his years of faithful and dedicated service," the resolution read in part, "he has earned the admiration and respect not only of the physicians of Virginia but also of his counterparts nationwide."

AT the same meeting, Council members voted to support these three recent actions of the AMA House of Delegates:

- That there be immediate cessation of funding and ultimate repeal of two laws relating generally to the National Health Planning Act and specifically to the establishment of the Health Systems Agencies network and to governmental support of health maintenance organizations.
- That, on its own initiative, the medical profession develop voluntary, locally based health planning programs.
- That all government-directed peer review programs, including the Professional Standards Review Organization, be eliminated.

In this issue's cover article beginning on page 393, VIRGINIA MEDICAL's Editor, Dr. W. T. Thompson, Jr., suggests a peer review program originated and conducted by physicians.

And in the July issue, VIRGINIA MEDICAL will publish a report on the accomplishments of the PSRO in Virginia by Dr. Robert A. Morton, Norfolk, chair-

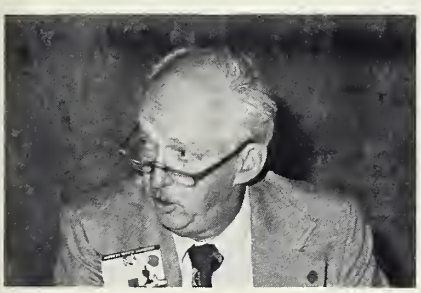
# VSBUREAU

man of The Medical Society of Virginia's Liaison Committee to the PSRO. The report was presented to the Council at this April meeting.

The July issue will also carry Bob Howard's customarily meticulous minutes of all that transpired at this Council meeting.

## *Dr. Stark to Seek Assembly Seat*

Dr. Carl E. Stark, Wytheville, a Past President of The Medical Society of Virginia and currently one of the Society's delegates to the American Medical Association, has announced that he will seek the Virginia General Assembly seat held by Del. Archibald A. Campbell, D-Wythe. Campbell, a 15-year legislative veteran, is chairman of the House Finance Committee.



*Dr. Carl E. Stark*

Dr. Stark, longtime mayor of Wytheville and former president of the Virginia Municipal League, is a Republican.

## *Class of 1981 Is Biggest Ever*

The largest number of Virginia medical school graduates ever—379 of them—are to pick up their diplomas at commencement exercises this year. Of the total, 32% will stay in the state for their residencies, according to officials at Virginia's three medical schools.

The proportion of female graduates is up sharply, records show, reflecting a nationwide increase in the number of women accepted by medical schools in the past ten years. For instance, at the Medical College of Virginia 48 out of 168 graduates this year, or 29%, are female, while a decade ago the ratio was eight out of 118, or 7%. At Eastern Virginia Medical School 25% of the Class of 1981 is female, and at the University of Virginia, 20%.

Pediatrics is attracting many of these women, constituting the second most popular choice of female graduates, but internal medicine is chosen most frequently by all the graduates, male and female, with family practice second and surgery third.

## *Bu$ine$$, Doctor$ Join to Curb Co$t$*

At the instigation of the Richmond Academy of Medicine, a coalition of Virginia business and medicine came into being recently in Richmond to explore the problem of health care costs and do something about it. The coalition took the shape of a steering committee with 12 members from the business community and providers of medical care; it was formed at the conclusion of a three-hour meeting at the Richmond Academy to which major employees in Richmond had been invited. Dr. Edward A. Zakaib, chairman of the Academy's cost containment committee, planned the meeting.

Sponsor of the coalition will be the Metropolitan Richmond Chamber of Commerce; it will be directed by Lee C. Tait, vice president of the Chesapeake and Potomac Telephone Company of Virginia. Its objectives will be to develop a data base, to set up a means of soliciting comments from all those providing health care, to develop a program of improved cost effectiveness and to monitor implementation of the program.

The business community's representatives to the committee and their firms are Norwood H. Davis, Jr., president, Blue Cross and Blue Shield of Virginia; Lee A. Putney, managing partner, Peat, Marwick, Mitchell & Co.; Wallace Stettinius, president, William Byrd Press; and Charles P. Wilson, president, Chewning & Wilmer, Inc.

Representing the providers of health care will be Dr. Charles M. Caravati, Jr., Dr. Duncan S. Owen, Jr., and Dr. J. Latane Ware, president, president elect and treasurer of the Richmond Academy; Richmond C. Kraus, administrator, Chippenham hospital; John N. Simpson, administrator, Richmond Memorial Hospital; and Dr. Zakaib.

After a newspaper story appeared describing the meeting and its results, officers of several firms not represented at the meeting called to express their interest in the effort, Dr. Zakaib told VIRGINIA MEDICAL.

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# LETTERS

## Finds Dr. Raiford in 1911 Photograph

The tall handsome man in the center of the photograph taken at the 1911 annual meeting and published in the October 1980 issue of VIRGINIA MEDICAL[1] is the late Dr. R. L. Raiford of Sedley, who in 1926 moved to Franklin, Virginia. Next to him is his wife, Mrs. Lora B. Raiford.

**E. M. Babb, MD**

Apartment 217, Building D
Imperial Plaza, Richmond VA 23227

1. Portrait of the 1911 annual meeting of The Medical Society of Virginia. Va Med 107:682–686, 1980

**20. Dr. R. L. Raiford. 21. Mrs. Raiford.**
**8. Dr. Stephen Hurt Watts**

## The Old Refrain: Please Print

Pharmacists often receive illegible prescriptions written on hospital blanks. If there are any questions about the prescription, the pharmacist is prevented from calling the physician because the name is illegible. State regulations require that prescriptions for controlled drugs bear the *printed* name, address and telephone number of the practitioner and an appropriate registry number. If these requirements are not met (as is the case in a large percentage of instances) the pharmacist cannot legally accept the prescription.

We feel that the physician writing the prescription is as desirous to have the prescription filled as the pharmacist, and we hope that he/she will comply with regulations by printing his/her name, address, telephone number and Drug Enforcement Administration number on all hospital or clinic prescription blanks that do not have the information pre-printed.

Kenneth W. Schafermeyer, RPh
Executive Director, Virginia Pharmaceutical Association
3119 West Clay Street, Richmond VA 23230

## Praise for a PSRO Stand

Dr. Butler's editorial on the Professional Standard Review Organization in the February issue of VIRGINIA MEDICAL was very appropriate, and I wish to commend him for his perceptiveness and the Editor for his willingness to publish it.[1]

The uniqueness of the PSRO approach in providing the group affected with the apparatus to monitor the quality and necessity of its own services is something many physicians fail to understand. I am concerned that the possible demise of the PSRO program will in the long run result in a far more rigorous regulatory environment administered by bureaucrats.

Freeman H. Vaughn
Executive Director, South Central PSRO
1904 Byrd Avenue
Richmond VA 23230

1. Butler WWS III: Careful, President Reagan, there's a baby in the bathwater. Va Med 108:138-139, 1981

## Corrects the Historical Record

I would like to correct three errors in my "Historical Notes" published in the April issue of VIRGINIA MEDICAL.[1] First, Ephraim McDowell and Jane Todd Crawford came from Rockbridge County, not Rockingham County. Second, Gen. "Stonewall" Jackson died in the second week after Dr. McGuire amputated his arm (actually on the eighth postoperative day), not two weeks later. Third, Alexis Carrel received the Nobel prize in 1912, not 1910.

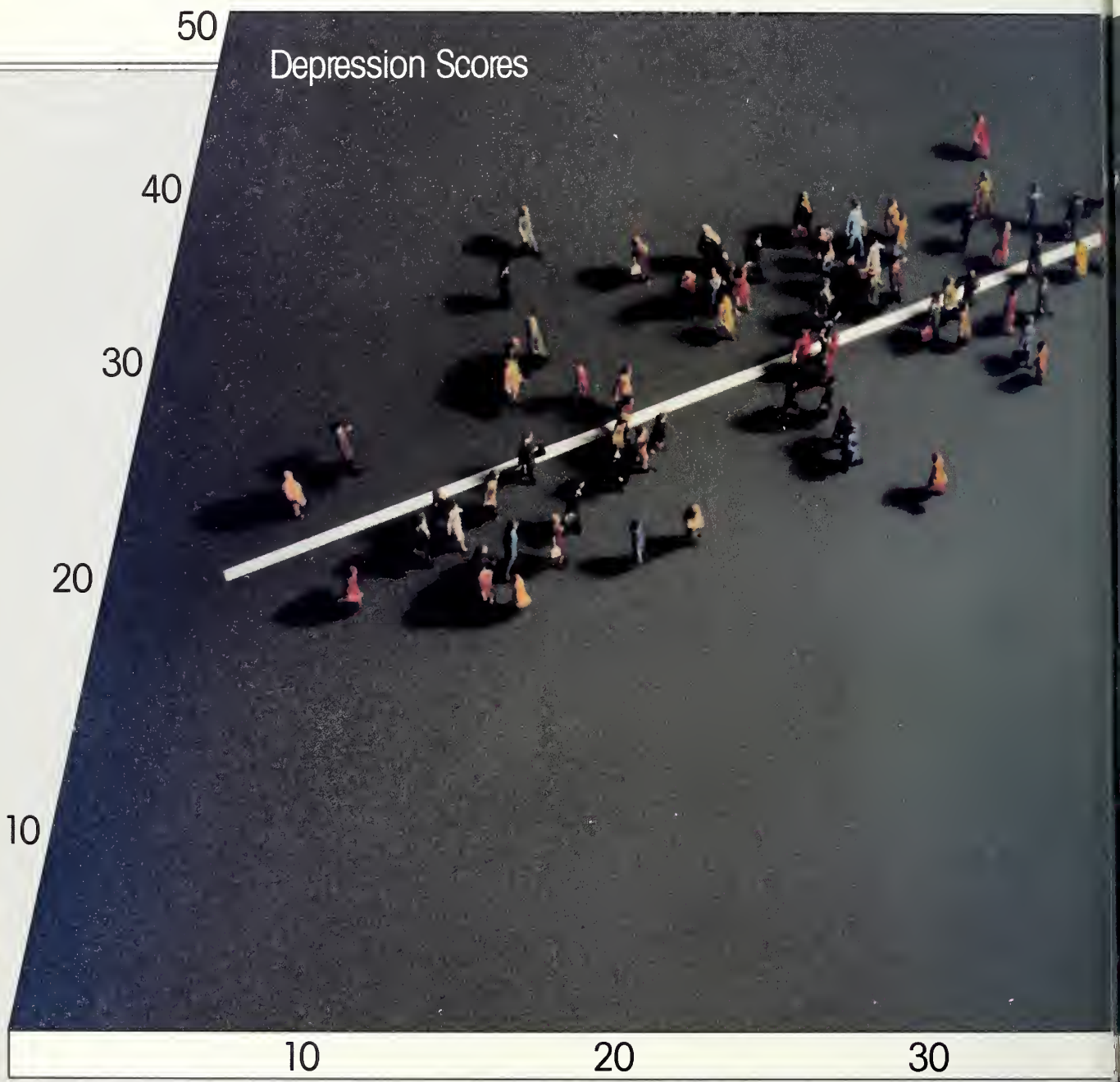
Additionally, friends who are knowledgeable about Hampden-Sydney College still reassure me that in the days of John Peter Mettauer the name of the school was spelled Hampden-Sidney College, with an "i" instead of the "y" used today.

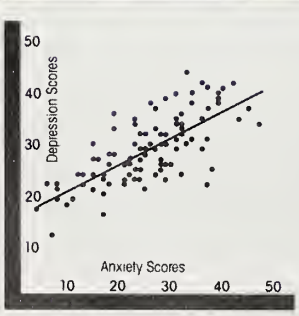
**W. Levi Old, Jr., MD**

DePaul Medical Building
Norfolk VA 23505

1. Old WLjr: They made surgical history in Virginia. Va Med 108:272-275, 1981

# FOR THE 7 OF 10 NONPSYCHOTIC




## Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3]Adapted from Clagham, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

ROCHE

# DEPRESSED PATIENTS WHO ARE ALSO ANXIOUS[1,2]

## Most depressed patients are also anxious...

Some authors estimate that 70% of all nonpsychotic patients with symptoms of depression have concomitant symptoms of anxiety.[1,2] One author found a distinct correlation between anxiety and depression scores in 100 nonpsychotic outpatients administered the Minnesota Multiphasic Personality Inventory in a general psychiatric clinic.[3] As depression scores increased, so did anxiety scores. No attempt was made to select patients other than to exclude psychotics.

## but not psychotic

The logic of treating both components of anxious depression is clear. Antipsychotics, like the phenothiazines, however, carry a well-documented risk of tardive dyskinesia.[4] Because of this, an APA Task Force recently recommended the judicious use of phenothiazines in cases other than chronic psychosis or the use of alternative treatments.

## A better way to give relief

Limbitrol combines the specific anxiolytic action of Librium® (chlordiazepoxide HCl/Roche)—a benzodiazepine with a long history of safe use—with the antidepressant action of amitriptyline, a tricyclic of established clinical efficacy. In comparison to phenothiazines, Limbitrol and its components have rarely been associated with tardive dyskinesia or other extrapyramidal side effects. And in terms of rapid response and patient compliance, Limbitrol appears to be superior to amitriptyline alone. Controlled multiclinic studies showed Limbitrol relieved more symptoms more rapidly than did amitriptyline.[5] Despite a higher incidence of drowsiness, the dropout rate due to side effects was lower with Limbitrol. (See adverse reactions section in summary of product information on next page. As with any CNS-acting agent, patients should be cautioned about driving or using dangerous machines while on therapy with Limbitrol.)

**References: 1.** Rickels K: Drug treatment of anxiety, in *Psychopharmacology in the Practice of Medicine,* ed. Jarvik ME. New York, Appleton-Century-Crofts, 1977, p. 316. **2.** Schatzberg AF, Cole JO: Benzodiazepines in depressive disorders. *Arch Gen Psychiatry 35*:1359-1365, 1978. **3.** Clagharn J: The anxiety-depression syndrome. *Psychosomatics 11*:438-441, 1970. **4.** The Task Force on Late Neurological Effects of Antipsychotic Drugs: Tardive dyskinesia, summary of a task force report of the American Psychiatric Association. *Am J Psychiatry 137*:1163-1172, 1980. **5.** Feighner JP *et al*: A placebo-controlled multicenter trial of Limbitrol versus its components (amitriptyline and chlordiazepoxide) in the symptomatic treatment of depressive illness. *Psychopharmacology 61*:217-225, 1979.

Anxiety Scores

50

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**Please see summary of product information on next page.**

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**Contraindications:** Known hypersensitivity to benzodiazepines or tricyclic antidepressants. Do not use with monoamine oxidase (MAO) inhibitors or within 14 days following discontinuation of MAO inhibitors since hyperpyretic crises, severe convulsions and deaths have occurred with concomitant use; then initiate cautiously, gradually increasing dosage until optimal response is achieved. Contraindicated during acute recovery phase following myocardial infarction.
**Warnings:** Use with great care in patients with history of urinary retention or angle-closure glaucoma. Severe constipation may occur in patients taking tricyclic antidepressants and anticholinergic-type drugs. Closely supervise cardiovascular patients. (Arrhythmias, sinus tachycardia and prolongation of conduction time reported with use of tricyclic antidepressants, especially high doses. Myocardial infarction and stroke reported with use of this class of drugs.) Caution patients about possible combined effects with alcohol and other CNS depressants and against hazardous occupations requiring complete mental alertness (e.g., operating machinery, driving).
***Usage in Pregnancy:* Use of minor tranquilizers during the first trimester should almost always be avoided because of increased risk of congenital malformations as suggested in several studies. Consider possibility of pregnancy when instituting therapy; advise patients to discuss therapy if they intend to or do become pregnant.**
Since physical and psychological dependence to chlordiazepoxide have been reported rarely, use caution in administering Limbitrol to addiction-prone individuals or those who might increase dosage; withdrawal symptoms following discontinuation of either component alone have been reported (nausea, headache and malaise for amitriptyline; symptoms [including convulsions] similar to those of barbiturate withdrawal for chlordiazepoxide).
**Precautions:** Use with caution in patients with a history of seizures, in hyperthyroid patients or those on thyroid medication, and in patients with impaired renal or hepatic function. Because of the possibility of suicide in depressed patients, do not permit easy access to large quantities in these patients. Periodic liver function tests and blood counts are recommended during prolonged treatment. Amitriptyline component may block action of guanethidine or similar antihypertensives. Concomitant use with other psychotropic drugs has not been evaluated: sedative effects may be additive. Discontinue several days before surgery. Limit concomitant administration of ECT to essential treatment. See Warnings for precautions about pregnancy. Limbitrol should not be taken during the nursing period. Not recommended in children under 12.
In the elderly and debilitated, limit to smallest effective dosage to preclude ataxia, oversedation, confusion or anticholinergic effects.
**Adverse Reactions:** Most frequently reported are those associated with either component alone: drowsiness, dry mouth, constipation, blurred vision, dizziness and bloating. Less frequently occurring reactions include vivid dreams, impotence, tremor, confusion and nasal congestion. Many depressive symptoms including anorexia, fatigue, weakness, restlessness and lethargy have been reported as side effects of both Limbitrol and amitriptyline. Granulocytopenia, jaundice and hepatic dysfunction have been observed rarely.
The following list includes adverse reactions not reported with Limbitrol but requiring consideration because they have been reported with one or both components or closely related drugs:
*Cardiovascular:* Hypotension, hypertension, tachycardia, palpitations, myocardial infarction, arrhythmias, heart block, stroke.
*Psychiatric:* Euphoria, apprehension, poor concentration, delusions, hallucinations, hypomania and increased or decreased libido.
*Neurologic:* Incoordination, ataxia, numbness, tingling and paresthesias of the extremities, extrapyramidal symptoms, syncope, changes in EEG patterns.
*Anticholinergic:* Disturbance of accommodation, paralytic ileus, urinary retention, dilatation of urinary tract.
*Allergic:* Skin rash, urticaria, photosensitization, edema of face and tongue, pruritus.
*Hematologic:* Bone marrow depression including agranulocytosis, eosinophilia, purpura, thrombocytopenia.
*Gastrointestinal:* Nausea, epigastric distress, vomiting, anorexia, stomatitis, peculiar taste, diarrhea, black tongue.
*Endocrine:* Testicular swelling and gynecomastia in the male, breast enlargement, galactorrhea and minor menstrual irregularities in the female and elevation and lowering of blood sugar levels.
*Other:* Headache, weight gain or loss, increased perspiration, urinary frequency, mydriasis, jaundice, alopecia, parotid swelling.
**Overdosage:** Immediately hospitalize patient suspected of having taken an overdose. Treatment is symptomatic and supportive. I.V. administration of 1 to 3 mg physostigmine salicylate has been reported to reverse the symptoms of amitriptyline poisoning. See complete product information for manifestation and treatment.
**Dosage:** Individualize according to symptom severity and patient response. Reduce to smallest effective dosage when satisfactory response is obtained. Larger portion of daily dose may be taken at bedtime. Single *h.s.* dose may suffice for some patients. Lower dosages are recommended for the elderly. Limbitrol 10-25, initial dosage of three to four tablets daily in divided doses, increased to six tablets or decreased to two tablets daily as required. Limbitrol 5-12.5, initial dosage of three to four tablets daily in divided doses, for patients who do not tolerate higher doses.
**How Supplied:** White, film-coated tablets, each containing 10 mg chlordiazepoxide and 25 mg amitriptyline (as the hydrochloride salt) and blue, film-coated tablets, each containing 5 mg chlordiazepoxide and 12.5 mg amitriptyline (as the hydrochloride salt)—bottles of 100 and 500; Tel-E-Dose® packages of 100, available in trays of 4 reverse-numbered boxes of 25, and in boxes containing 10 strips of 10; Prescription Paks of 50.

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*Arlington County Medical Society*

**Kamal K. Okail, MD,** Otolaryngology, 4810 Beauregard St., Alexandria VA 22312

**Inder K. Bhat, MD,** General Surgery, 4600 King St., Alexandria VA 22302

**Janet R. K. Hutcheson, MD,** Radiology, 6521 Greentree Rd., Bethesda MD 20034

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**Carl A. Broaddus, Jr., MD,** General Surgery/Thoracic Surgery, Box 1119, Kilmarnock VA 22482

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**Gary Wayne Routson, MD,** Orthopedics, One Dudley St., Martinsville VA 24112

**John W. Selman, MD,** Otolaryngology, 1515 Lakeview Trail, Martinsville VA 24112

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**Roberto Luna-Caro, MD,** Child Psychiatry, 301 Fort Lane, Portsmouth VA 23704

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**G. A. Crichigno, MD,** Child Psychiatry, 1805 Monument Ave., Richmond VA 23220

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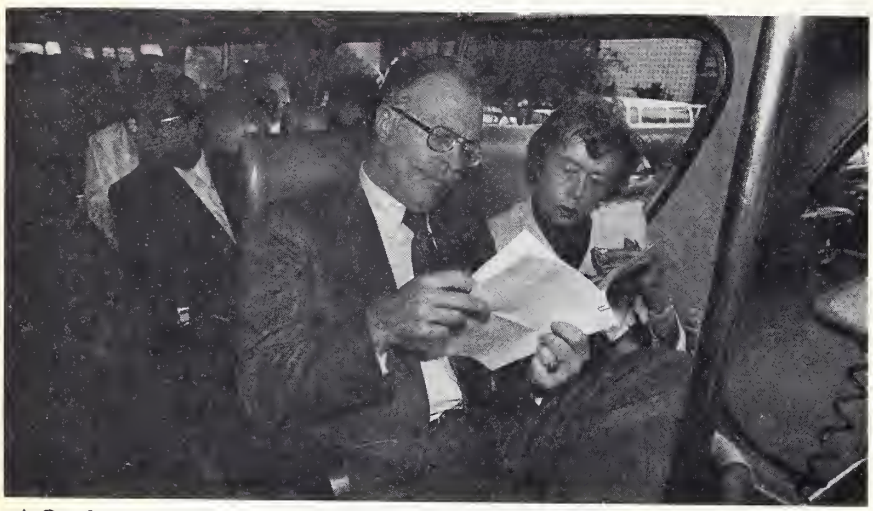
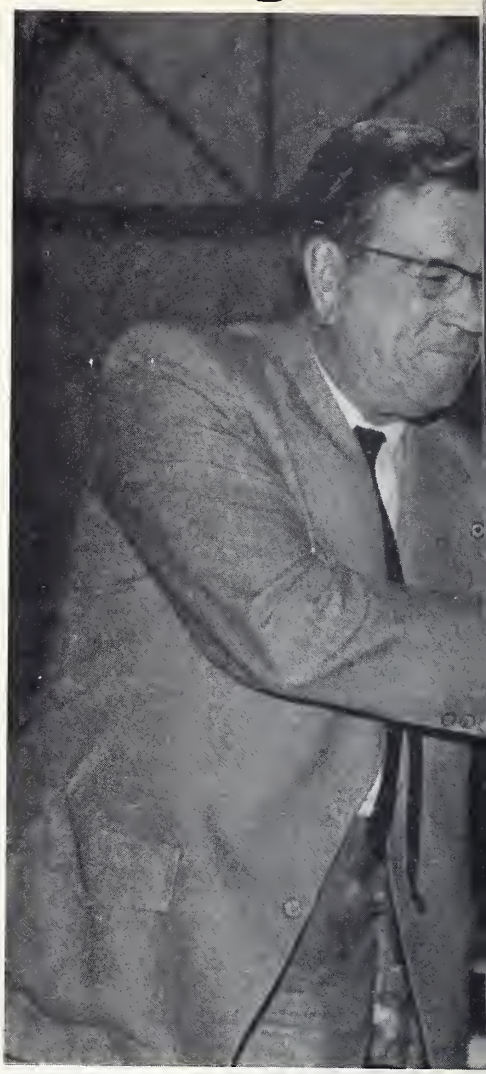


▲ On the road: Dr. and Mrs. Bedford H. Berrey, Midlothian.

▲ Dr. Gerald C. Burnett, South Boston, and his fiancee, Melinda Armstrong.



▲ Passing the prize: Dr. John M. Smith, Jr., San Antonio, AMPAC chairman (left) and Dr. W. Leonard Weyl, Arlington, VaMPAC chairman.

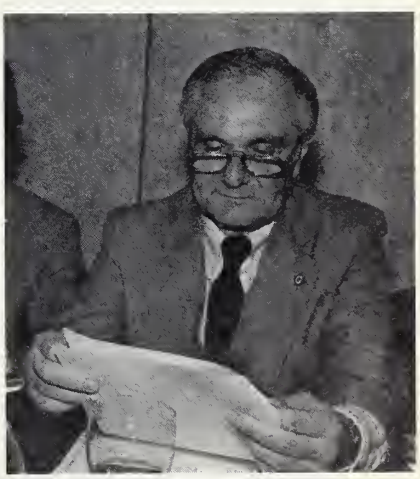
# with adventure

What was scheduled as a routine spring meeting of the VaMPAC board of directors turned into a celebration when the chairman of the American Medical Political Action Committee, daddy of all the PACs, flew into Alexandria, Virginia, with a plaque signifying that VaMPAC had swept the field of all state political action committees in the 1980 Membership Awards race. Conferred by AMPAC, the annual awards recognize winners in six categories of membership and contributions. Virginia carried off the "All Events" prize for being a front runner in all six categories.

The moment of victory, shown in the picture at left, was a last-minute added attraction to a day of spectaculars long since planned by Dr. W. Leonard Weyl, who brings a strong sense of show biz to the VaMPAC leadership. First, board members and their spouses lunched at the Capitol Hill Club with Congressman Frank R. Wolf (R-Falls Church), who then escorted them onto the floor of the House, a privilege rarely extended to outsiders. The chamber was empty, and the 25 doctors and their spouses could wander about, testing the congressional seating and enjoying a legislator's-eye view of the gallery, to which visitors are customarily confined.

Then, after the board meeting, further festivities were in order: There was a rendezvous with PAC 250 members and their spouses, swelling the group to 150

▲ At the board meeting: left to right, Dr. Emory F. Hodges, Jr., and Dr. Antonio M. Longo, both of Alexandria, and Dr. George E. Broman, Culpeper.



▲ Dr. Stuart Ashman, Virginia Beach.
Photographs by Marsha Polier

persons, and everyone piled into chartered busses and rolled out to the Georgetown estate of Senator John W. Warner. There, in the balmy late April afternoon, Senator Warner was waiting to press the flesh, and a platoon of caterers purveying food and drink moved about the spacious grounds, lush with springtime's new green. Night was falling when the garden party broke up, and busses took everyone back to a hospitality suite in Alexandria, where farewells were said to a day PAC'd with pride and adventure. A.G.

▲ From left, Mrs. James E. Gillespie and Dr. Gillespie, Waynesboro, and Dr. Robert W. Preston, Harrisonburg.

▼ At the garden party: left to right, Dr. Clarke Russ, Jr., Virginia Beach; Dr. Arthur A. Kirk, Portsmouth; and Dr. George H. White, Jr., Winchester.

► Senatorial tennis elbow? Orthopedist Robert P. Nirschl, Arlington, left, and Warner.

▲ Dr. Gervas S. Taylor, Jr., Norfolk, left, and the Senator.

► Dr. Henry S. Campell, Martinsville, left, and Dr. Lindley T. Smith, Richmond.

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# MEETINGS ABOUT MEDICINE

**1981 Annual Meeting, The Medical Society of Virginia: October 21-25, Norfolk**

**June 22-26**
**Advanced Practicum—Ultrasound** (Johns Hopkins University), *Baltimore, Maryland.* Fee: $400. Janet B. Hardy, CME Office, 720 Rutland Ave., Baltimore MD 21205.

**June 25-27**
**Dermatology Days** (University of Maryland), *Ocean City, Maryland.* Betty B. Saar, Program of Continuing Education, University of Maryland, Room 300 MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**June 25-27 and July 23-25**
**Eastern Virginia Medical School Summer Conference at Virginia Beach—Internal Medicine.** James P. Baker, MD, PO Box 1980, Norfolk VA 23501, (804) 628-3584.

**June 28-July 3**
**7th Annual Family Review Course** (University of Maryland), *Ocean City, Maryland.* Betty B. Saar, Program of Continuing Education, University of Maryland, Room 300 MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**July 6-10**
**Basic Practicum Ultrasound** (Johns Hopkins University), *Baltimore.* Cat. 1 credits. Fee: $400. Janet B. Hardy, CME Office, 720 Rutland Ave., Baltimore MD 21205, (301) 955-8450.

**July 14-18**
**5th Annual Virginia Beach Update in Neuroscience** (McGuire Veterans Administration Center), Cavalier Hotel, *Virginia Beach.* 16 hrs. Cat. 1. Fee: Physicians, $200; residents/interns, $100. Judith S. Dunnington, MD, 11B VA Medical Center, Richmond VA 23249, (804) 231-9011.

**July 18**
**Basic Science Review, III; Psycho-Pharmacology** (East Tennessee State University), *Johnson City, Tennessee.* 7 hrs. Cat 1 credit. Fee: $50. Shirley Bogart, (615) 928-6426, ext. 204.

**July 21-25**
**Fourth Annual Symposium on Contemporary Clinical Neurology** (Vanderbilt University), *Hilton Head, South Carolina.* Mrs. Joan Sullivan, Department of Neurology, Vanderbilt University, Nashville TN 37232.

**August 15**
**Stress in Medical Practice** (East Tennessee State University), *Johnson City, Tennessee.* 6 hrs. Cat. 1 credit. Fee: $50. Shirley Bogart, (615) 928-6426, ext. 204.

**August 20-22**
**Eastern Virginia Medical School Summer Conference at the Beach,** *Virginia Beach.* James P. Baker, Jr., MD, (804) 628-3584.

## SERIAL LEARNING PROGRAMS

Colby College in Waterville, Maine, has presented continuing medical education courses since 1945, building a national reputation for courses of quality in a pleasurable summer milieu. Physicians and their families are accommodated on campus, and tours, children's games and a lobster-clambake are offered. Enrollment is limited and reservations should be made early. The courses offered in 1981 are listed below; the hours shown are AMA Category 1 credits. For further information write to Robert H. Kany, Colby College, Waterville ME 04901, or call Sandy Stone, (207) 873-1131, ext. 267 or 251.

| | | |
|---|---|---|
| July 6-10 | Emergency Medicine | 25 hrs. |
| July 13-17 | Pediatrics | 16 hrs. |
| July 14-17 | Surgical Techniques | 15 hrs. |
| July 19-31 | Maine Orthopedic Review | 60 hrs. |
| July 21-24 | Dermatology for the Non-Dermatologist | 16 hrs. |
| July 26-30 | Neurosurgical Techniques | 21 hrs. |
| July 27-30 | Epilepsy Symposium | 18 hrs. |
| August 2-6 | Otolaryngology | 18 hrs. |
| August 3-7 | Obstetrics & Gynecology | 18 hrs. |
| August 3-7 | Anesthesiology Update | 16 hrs. |
| August 9-13 | Ophthalmology | 18 hrs. |
| August 16-20 | Nuclear Medicine | 23 hrs. |
| August 23-26 | Forensic Medicine | 23 hrs. |
| August 23-26 | Pulmonary Disease | 18 hrs. |

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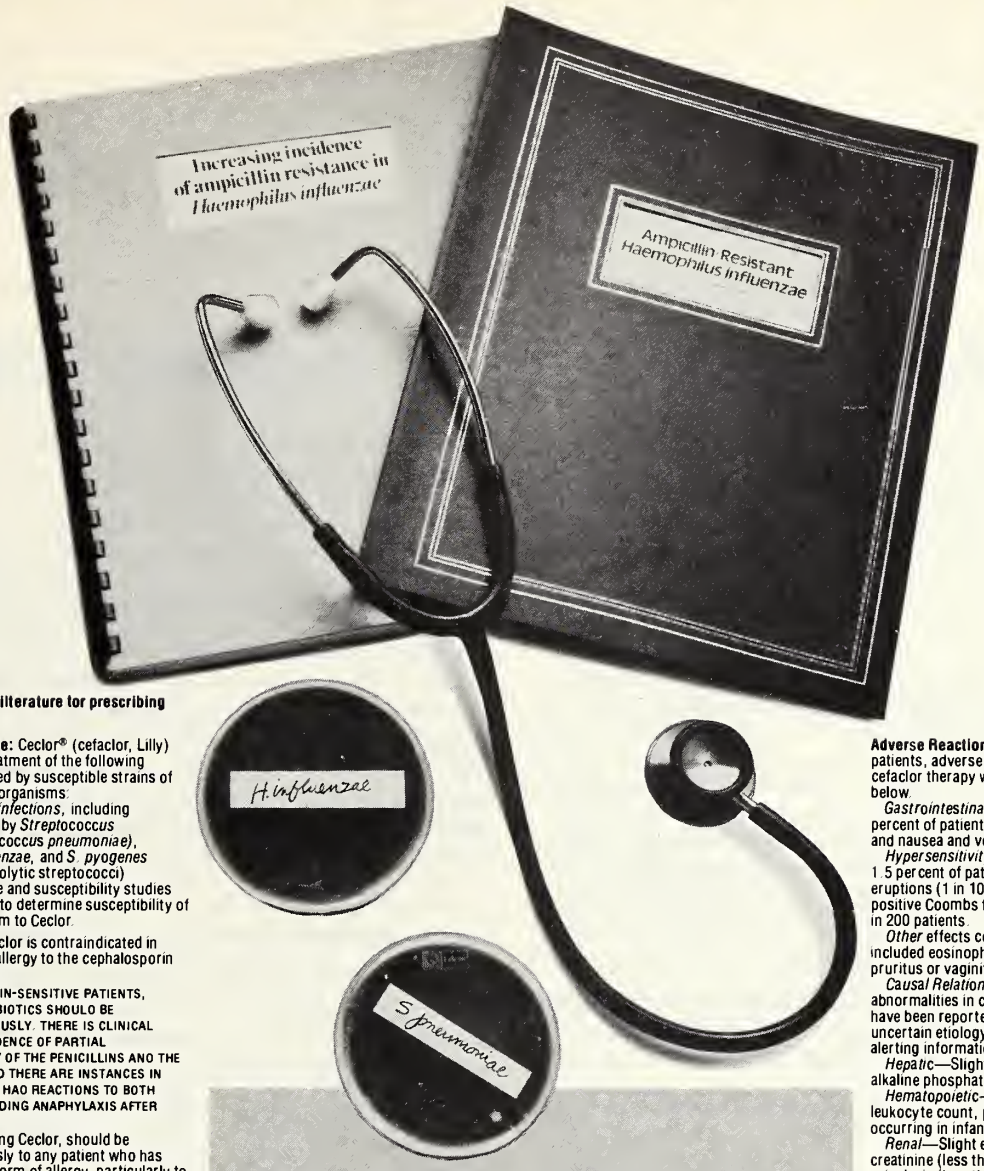
# An added complication... in the treatment of bacterial bronchitis*




**Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.**[1-6]

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

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**Brief Summary.**
**Consult the package literature for prescribing information.**

**Indications and Usage:** Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

*Lower respiratory infections*, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

**Contraindication:** Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

**Warnings:** IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

**Precautions:** If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

*Usage in Pregnancy*—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

*Usage in Infancy*—Safety of this product for use in infants less than one month of age has not been established.

**Adverse Reactions:** In clinical studies in 1493 patients, adverse effects considered related to cefaclor therapy were uncommon and are listed below.

*Gastrointestinal* symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

*Hypersensitivity* reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

*Other* effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

*Causal Relationship Uncertain*—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

*Hepatic*—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

*Hematopoietic*—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

*Renal*—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[070379R]

*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

*Note:* Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.


**References**

1. Antimicrob. Agents Chemother., *8*:91, 1975.
2. Antimicrob. Agents Chemother., *11*:470, 1977.
3. Antimicrob. Agents Chemother., *13*:584, 1978.
4. Antimicrob. Agents Chemother., *12*:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II:880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., *13*:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.


*Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.*

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000482

# Medicine at the General Assembly 1981

Summarized here are significant health-related actions. A complete report of all legislation concerning medicine discussed at this session has been compiled by Willard C. Osburn, The Medical Society of Virginia's staff member for legislation, and is available to MSV members on request.

ADOPTED

• SB-537, Sexual Sterilization: Will amend, add, and repeal sections regulating sexual sterilization of incompetents.

• SB-567, Physicians and Laboratory Directors to Report Diseases: Will require physicians and laboratory directors to report any venereal disease diagnosed in children 12 years of age and under to the local welfare department for investigation as suspected child abuse unless reasonable belief that infection is congenital or otherwise not indicative of sexual abuse.

• SB-654, Medical Evidence: Allows doctors to furnish copies of medical records, rather than originals, and to require patients to authorize attorney's request for records.

• SB-700, Hospices: Establishes licensing procedure for hospices.

• SB-717, Medical Treatment for Incompetents: Specifies court procedure for obtaining consent to medical treatment for persons mentally incompetent to give or physically incapable of giving consent to treatment.

• SB-750, Prepaid Health Plans: Authorizes insurer offering certain prepaid health plans the option of offering policy with greater deductible or cost-sharing provision than present minimum.

• SB-810, Air Medical Evacuation System: Establishes statewide air medical evacuation system to be administered and operated by the Office of Emergency Medical Services utilizing State Police helicopters.

• SJR-145, Study of Hospice Programs: Requests the Department of Health to continue the evaluative study of hospice programs in Virginia.

• SJR-164, Child Restraint Systems Material: Requests the State Police to prepare and distribute material relating to child restraint systems.

• SJR-171, Swing-beds: Encourages the Department of Health to participate in the federal program options for the use of swing-beds in hospitals and nursing homes.

• HB-87, Pituitary Gland Retrieval: Introduced at the request of The Medical Society of Virginia. Authorizes the Chief Medical Examiner to provide body organs, glands, eyes or other tissue on the request of the transplanting surgeon when such are needed by a patient for a transplant or therapy. Amended to repeal five criteria for removal, substituting a requirement of consent before donation to transplanting surgeon or organ bank.

• HB-756, Medicaid Fraud: Authorizes the Attorney General to investigate abuses of the Medicaid program.

• HB-1094, Regulation of Practice of Social Work: Modifies the definition of the "practice of social work" and changes the name of the Virginia Board of Social Workers to the Virginia Board of Social Work.

• HB-1275, Podiatrists' Hospital Privileges; Hospitals must approve or disapprove application within 120 days after application is completed.

• HB-1358, Licensure of Physicians: Exempts from licensure by the State Board of Medicine, on a limited basis, non-resident physicians licensed in another state who are temporarily treating patients.

• HB-1525, Medical Malpractice Review Panels: Requires opinions from medical malpractice review panels be rendered within six months from the panels' designation.

• HJR-218, Infant Mortality Study: Requests the State Perinatal Services Advisory Council, in cooperation with the Department of Health and Welfare, to study the high rate of infant mortality in Virginia.

• HJR-258, Orthomolecular Psychiatry Study: Requests the House Committee on Health, Welfare and Institutions

and the Senate Committee on Education and Health to appoint a joint subcommittee to study orthomolecular psychiatry.

VETOED

• HB-1576, Medicaid Abortions: Requires payment for abortions in cases of rape or incest.

• HB-1577, Medicaid Abortions: Requires payment for abortion if physician certifies fetus likely to be grossly abnormal.

KILLED

• SB-369, Denial of Professional Practice to Physicians: Would have made it an improper practice for the governing body of a medical care facility to deny any licensed physician privileges to treat a patient who needs medical treatment which demands the use of equipment for which a certificate of need is required.

• SB-440, Child Restraint Systems: Would have required use in motor vehicles of child restraint systems for all children under four years of age.

• SB-708, Certificate of Public Need Law: Would have generally revised Virginia's certificate of public need law to conform to federal requirements, added hospices to list of applicable facilities, and made extensive changes in procedure. Physician offices generally excluded.

• SB-794, Attorneys' Fees: Would have authorized court to award attorneys' fees to defendants when suit is brought maliciously or in bad faith.

• SJR-95, In Vitro Fertilization Study: Would have requested a joint subcommittee of the Senate Committee on Rehabilitation and Social Services and the House of Delegates Committee on Health, Welfare and Institutions to conduct a study on the advisability of legislative or agency rules to regulate the practice of in vitro fertilization and embryo transfers.

• HB-254, Licensure of Surgical Assistants: Would have required the State Board of Medicine to promulgate regulations for the licensure of surgical assistants, defined "surgical assistant", and specified eligibility criteria therefor.

• HB-321, Medicaid Coverage for Pregnant Women: Would have required the State Medical Assistance Plan to include coverage for women who are not otherwise eligible through the program of Aid to Families with Dependent Children, and provided that such eligibility shall date from the time their pregnancy was medically determined.

• HB-762, Statute of Limitations: Would have provided that medical malpractice acts commence within five years of the injury committed or three years after discovery, whichever is shorter.

• HB-872, Right to Natural Death; Brain Death: Would have provided procedure for person to declare that he did not desire any extraordinary means to be employed to sustain his life.

• HB-925, Reimbursement Under the Medicaid Program: Would have provided that medical or dental services reimbursed by the Medicaid program be paid for at the same rates as those paid by private insurance companies.

• HB-1002, Professional Licensing Boards: Would have added two public members to the Real Estate Commission, the State Board of Pharmacy, the State Board of Nursing, and the State Board of Medicine.

• HB-1200, Podiatrists' Hospital Privileges: Would have limited the circumstances under which hospitals could deny privileges to podiatrists.

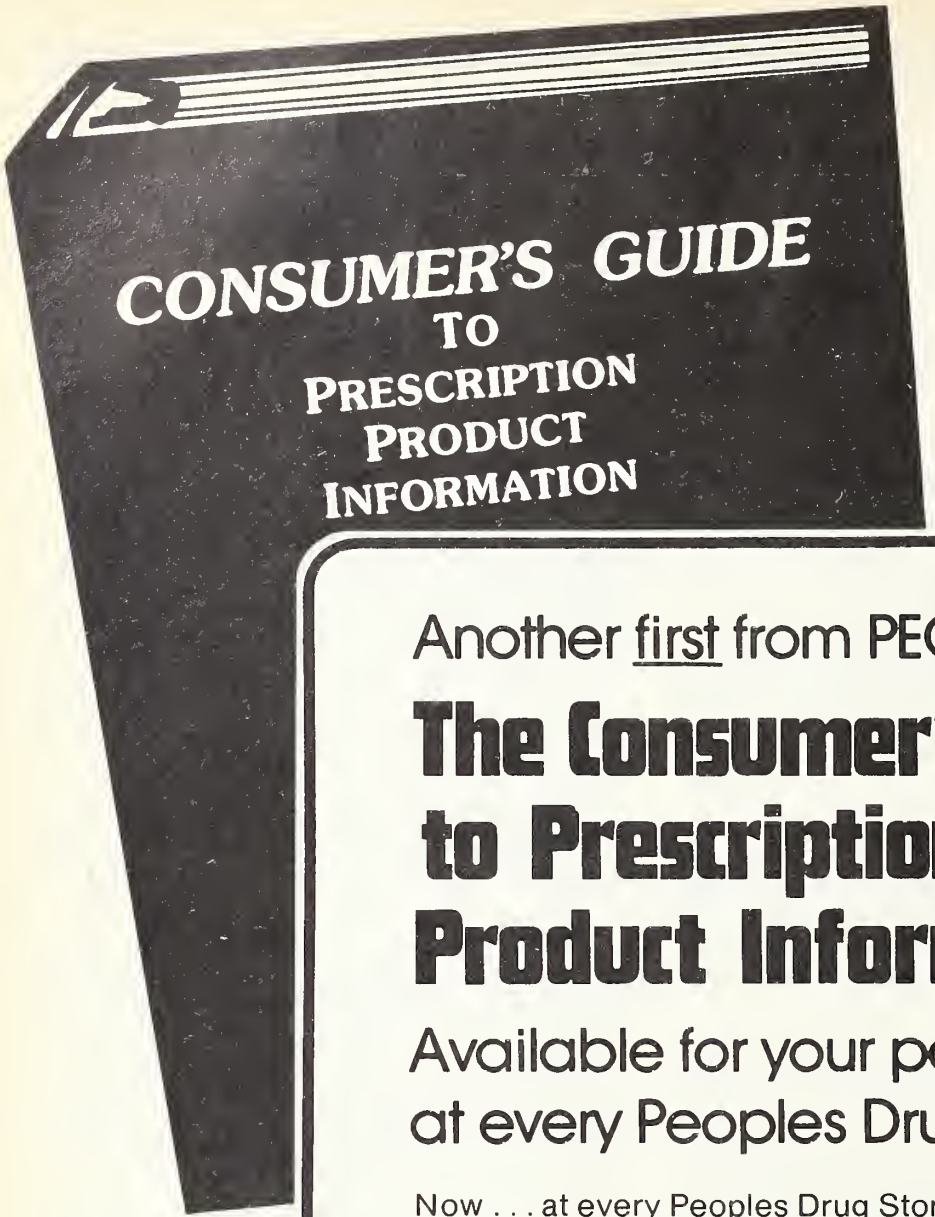
• HB-1601, Patient Records: Would have restricted health care provider from charging patients for certain reports and duplication of certain patient records.

• HB-1754, State Board of Medicine: Would have restricted notification of punitive actions against practitioner to hospitals where practitioner has privileges.

PLACED IN STUDY

• HB-1700, Medical Malpractice: Would have repealed statute setting a $750,000 limit on recovery in medical malpractice cases.

• HB-1745, Statute of Limitations: Would have provided that in malpractice, product liability and injury from improvements to real estate, cause of action would commence on discovery of injury.

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VIRGINIA MEDICAL
JUNE 1981

# To Do or Not to Do: That Is the Question

"Do we really believe that the federal government must be reduced in size, cost and pervasiveness? That individuals and groups should accept responsibility for certain functions even though federal agencies are operating at local levels? That the medical profession itself should control the quality, cost and availability of medical care?"

By W. T. THOMPSON, JR., MD,
EDITOR

WHETHER it is nobler in the mind to suffer the slings and arrows of outrageous fortune, the continuing challenges of alphabetic bureaucracies, or to take arms against a sea of troubles, and by opposing end them, thus pushing back the acronymic encroachment now pressing on our profession.

Should, could, or would the medical profession do that which is needed to be done to set its own house in order. More specifically, should we, could we, or would we, ourselves, police the quality, cost, and availability of the medical services we provide. Is it part of our job to review the practice of our fellow physicians with a view to determining whether what they do meets standards which we deem appropriate—the "we" being a committee of peers. Is it proper or repugnant for one practitioner or group to sit in judgment on another.

Granted that we should, could we do it even if we felt that we should. Do we have the mechanisms, the tools, the manpower, the organization to do it.

Finally, granted the first two, would we do it. Do we have the will. Would we undertake this formidable, thankless and divisive task if we should or could.

We, all of us, are aware of, and have largely deplored, the events of the past decades: the proliferation of governmental agencies that are looking at and having a voice in medical practice. Yet our medical profession, in the main, itself divided on the issues, has stood like Hamlet, indecisive, undecided, unsure of what action to take.

Inaction or perceived inaction on the part of one led to action on the part of the other; and so relentlessly rising costs and questions as to quality provided the stimulus to the governmental compulsion to institute controls on the system at least in part responsible. It is understandable that multiple medical governmental agencies were born; and each borning was quite painful, including that of Section 2497 in Title II of Public Law 92-603 Social Security Amendment of 1972 which provided for the establishment of Professional Standards Review Organizations, better known by the acronym PSRO.

There is no quarrel with the goals of PSRO. Here in Virginia and elsewhere we have dedicated, capable, understanding fellow practitioners in charge. Whether it and other agencies are actually contributing to controlling costs and improving quality is

> Could we establish our own accountability, our own controls, our own professional review organizations? The answer is an unequivocal yes. The mechanisms are already in place. Decisions are being made. Actions are being taken. They need strengthening, but they are there.

open to question. Each has its strong supporters and its equally strong detractors. But that's not the point. The real question is whether any organization mandated by, financed by, and therefore ultimately controlled by the federal government should have the role that PSRO, HSA, and others have in medical practice.

Now the election of President Reagan, the philosophy of government that he expresses, and the actions that he is taking challenge us directly. Do we really believe that the federal government must be reduced in size, cost, and pervasiveness; that individuals and groups should accept responsibility for certain functions even though federal agencies are operating at local levels; and, more specifically, that the medical profession, itself, should control the quality, cost, and availability of medical care provided by medical practitioners. Right now, with the present climate of governmental attitudes and policies, we seem to have an unprecedented opportunity to act on our beliefs—an opportunity which may not come our way again.

SHOULD we establish our own accountability, our own PSROs, or, better yet, our own PROs—Peer Review Organizations. The answer has to be a resounding yes. Firstly and most importantly, quality assessment needs doing—not to satisfy any government requirements, but because it is best for our patients. Most doctors practice good, honorable, honest medicine. Unfortunately, as in any profession, there are those who are handicapped or sick, or lazy, or poorly informed, or incompetent, or avaricious. Fellow practitioners know best who they are, and should accept the responsibility for controlling them.

Caveat emptor may be an acceptable philosophy in certain circumstances of selling and buying goods and services, but it is impermissible when it pertains to individuals who need medical attention. For health as well as financial reasons patients cannot afford a trial and error system of "buying" medical care. Protection of the "buyer" is one of the factors that differentiates the medical profession.

Secondly, it is self-evident that steps must be taken to control the escalating costs of medical care. Statistics are impressive and depressing. In the last ten years, 1970-1980, the average "health" bill for each American rose from $334 to $1,028, a remarkable figure and a challenge to our profession, even though there is no breakdown of it to show what part may be controlled by the doctor. The average hospital bill per patient day is now more than $252, and the costs of Medicare and Medicaid exceed $50 billion. Doctor's fees have gone up by 205% over the past 15 years.

Thirdly, we should do it for our own self-interest. Whether we like it or not—and most like it at least to the extent that we now are paid for services rendered to patients who previously were unable to pay—medical practice is forever ensnared in third-party payments; and that means that there must always be an accounting of money paid by the third party. Some cynic has defined the golden rule as, "He who has the gold rules." The federal government will continue to put in the most money, so the federal government will always make the stronger demand that there be an overview of what that money buys.

The likely cutting off of funds and withering away of PSROs presents us with a chance, which we neglect at our own risk, to establish our own peer review system—our own peer review organizations—our own PROs. It would be inestimably better for us to do this than have government controls reimposed if we do not take action.

Furthermore, a clear recognition that doctors are assuming control of the quality and cost of services rendered would have a most salubrious effect on our "image". As individuals doctors continue to be highly regarded; as a profession we continue to be under attack. Our institution of effective PROs would have great public relations value. A peer review system organized and operated by doctors without governmental supervision or coercion would be concrete evidence that doctors are determined to provide quality medical care at the most reasonable cost.

COULD we establish our own accountability, our own controls, our own PROs. The answer is an unequivocal yes. The mechanisms are already in place. Decisions are already being made. Actions are already being taken. Admittedly they need strengthening, beefing up, but they are there. With some prodding from a variety of directions, e.g., Joint

Commission on Accreditation of Hospitals, the medical profession has established a number of methods for policing itself. Every medical organization has firm criteria which must be met for membership, and a number of committees that deal with the character and quality of practice. Every hospital has utilization review, length of stay, records, surgical tissue, autopsy and death, infections, pharmacy, special units (intensive care, coronary, pulmonary, newborn, and such), credentials, quality control, departmental and executive committees. When other problems arise, ad hoc committees are quickly established to deal with them. There is also the Virginia State Board of Medicine that certifies the qualifications of those licensed to practice in this state and oversees violations of law relating thereto.

Two major problems are immediately evident. The first is money, yet it is not insoluble. Many foundations that are active in the health fields are concerned with the cost and quality of medical care and would be interested in an imaginative peer review program. The federal government itself, through the National Institutes of Health, accepts such grant applications.

Private Initiative in Quality Assurance, PIQuA, a project funded by the Kellogg Foundation and cosponsored by the American College of Physicians, the American Society of Internal Medicine, and the American Hospital Foundation, exemplifies the means by which the private sector can assess the competence of practicing doctors, in this case internists. It is also an indication that there is an awareness in the private sector of the importance of the physicians themselves originating these studies. PIQuA will attempt to deal with office as well as hospital practice. A preliminary trial was successful, and a pilot test is tentatively scheduled to be conducted among internists in Virginia, Maryland, and the District of Columbia.

Our Medical Society of Virginia has rather large budgets for public relations and political action, to make people think better of us and get government off our backs. Why not devote some of these monies to establishing our own PIQuAs or PROs, which offer such fine potential for healthy public relations and telling political action?

The least expensive and perhaps the best way to initiate effective private quality and cost assurance would be for each hospital staff to determine that each hospital committee does its job properly under the supervision of its own PRO, which could be established at low cost. This would clearly identify the doctors who hospitalize patients unnecessarily or keep them too long, and the doctors whose diagnoses and treatments are ill-founded. Then corrective action could be taken.

Legal action is the second problem. It is a serious matter if a patient's third-party payments or a doctor's livelihood are threatened by unfavorable committee action. Both patients and doctors must be protected against capricious judgments. But our litigious society and broadening concepts of individual rights may make it difficult to move effectively against even flagrant offenders. Court tests would be required to determine how far hospitals and medical organizations could go in disciplining doctors and denying payments to patients. Nevertheless, the PROs that we can establish would face no greater handicap than the present PSROs.

WOULD we establish our own PSROs, PIQuAs, PROs. This cannot be answered yet for it will be determined by each practicing doctor. If enough are convinced of its value, want to do it, and get on with it, it will be done; otherwise it won't.

No one is naive enough to think that peer review by fellow physicians will be an easy task, or will become operative by appointing a committee or establishing an organization. Indeed, there are major obstacles. Physicians have never been oriented in this direction. Most have never seemed to have the time, the spare energy, the interest, or the willingness to become involved in true peer review, even though many perform yeoman service on numerous committees of hospitals and medical organizations. There are some doctors who are "conscientious objectors." They sincerely feel that they should not and cannot judge their fellows. And there are others who are simply "objectors".

Excluding the crooks and practitioners who operate on the shady side and understandably resist even casual scrutiny, the best of doctors may not welcome a third party looking over shoulders and reviewing work. Furthermore, any review organization often

> "A peer review system organized and operated by doctors without governmental coercion would have great public relations value. It would give concrete evidence that doctors are determined to provide quality medical care at the most reasonable cost."

deals with shades of gray and with extenuating circumstances. There may be "judgment calls" that merit appeals.

The issue may turn on money; not money required to develop and operate PROs, but the money inherent in the fee-for-service system. Officials of hospitals that have to be financially solvent or operate at a profit may not favor early discharge when the census is done. Doctors under financial pressures may be loathe to forego the fees for daily visits or for certain procedures; and they may be unwilling to offend a fellow physician who sends them patients, or to risk losing a friend.

Now for a disclaimer. This editorial represents my opinion only, and not necessarily that of The Medical Society of Virginia or any member other than myself. A similar expression of mine[1] made almost ten years ago, when PSRO was on the horizon, obviously passed unnoticed, the feeling being that government controls were inevitable. But this is a new day. We have come a long way since PSRO was established. While many of us don't like PSRO any better, we are more comfortable with review procedures, we recognize the contributions they can make, and we are more aware of the need for them. In fact, every doctor has his own PSRO, PRO, PIQuA, or whatever he may think it to be that is operational at all times, monitoring and controlling everything that he does. It is only for those who can't or won't establish sufficiently high standards that external controls by his peers are necessary.

The words "private initiative" have a nice ring to them. Let's establish Private Initiative Peer Review Organizations in our hospitals, our localities, statewide. PIPRO makes a good working acronym. Then, if the PSRO baby is thrown out with the bath water,[2] we will have brought forth our very own better one.

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# Foundation for Genetic Counseling: Study of the Stillborn Infant

William G. Wilson, MD, and Thaddeus E. Kelly, MD, *Charlottesville, Virginia*

The occurrence of stillbirth poses a diagnostic emergency for the attending physician, for it is the systematic documentation of the infant that will be crucial to future genetic counseling of the parents. The authors offer a protocol for this documentation, illustrating with cases from their own experience.

THE anticipation of the birth of a child is a time of great excitement for most prospective parents. When the pregnancy ends in stillbirth rather than in the birth of a living, healthy infant, the psychological impact can be devastating.[1-3] To the parents' grief is added the fear that future pregnancies of that couple or other family members may be similarly affected, resulting in stillbirth or in a liveborn infant with malformations or severe mental retardation.

**Case Report**

A 21-year-old woman and her 26-year-old husband sought genetic counseling about malformations present in their first child, a stillborn infant born two years previously and described as having "multiple congenital abnormalities certainly incompatible with life". No further description of the infant was recorded, and no photographs, radiographs, or chromosome studies were obtained. Autopsy was not discussed with the parents. Neither parent saw the infant, and they recalled being told that the baby had "something abnormal about the way the cells divided". The physician who delivered the stillborn infant was contacted, but had no additional information and could not remember the abnormalities present in the infant.

What these parents wanted of the genetic counselor, of course, were answers to two questions: Might a stillbirth recur in subsequent pregnancies? Might a liveborn infant have severe physical or mental handicaps? Since the nature of the malformations in the infant stillborn two years previously could not be determined, these questions could not be specifically answered; the parents could only be given general information about stillbirth and birth defects. At their request, chromosome studies were done, showing both parents to be normal in this regard.

A diagnostic evaluation of the stillborn infant two years previously may have enabled the genetic counselor to better answer the questions of this couple and therefore help them in their decisions regarding future pregnancies. This paper is intended as a guide for the physician in the evaluation of a stillborn infant.

From the Division of Medical Genetics, Department of Pediatrics, University of Virginia Medical Center. Address correspondence to Dr. Wilson at Box 386, University of Virginia Medical Center, Charlottesville VA 22908.

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## The Evaluation

The occurrence of stillbirth poses a diagnostic emergency for the physicians involved, for only a brief period of time is available in which to examine the infant, document normal and abnormal features, discuss the need for an autopsy examination with the parents, and arrange for additional studies, such as radiographs or karyotype.

Several idealized protocols for the evaluation of stillbirths have been published[4-7], each an attempt to aid in the systematic documentation of the infant for the purpose of future counseling for the parents. We have summarized the main points of these protocols and have cited examples from our clinical experience to illustrate.

**1. Physical examination and written description**

Areas of special concern in the physical examination include the face, palate, and extremities. Measurement of length, head and chest circumference, ear length, inner canthal and outer canthal distances, and pubis-to-heel length should be part of the examination.

The written description should be a detailed account of both normal and abnormal findings by the obstetrician, pediatrician or pathologist. This may be the only record of the infant's physical appearance, and it is important that it be accurate and complete.

*Case Example.* A woman had a stillborn infant described as having cyclopia and gastroschisis. No other description was available, and no additional studies were performed. The woman had previously had two miscarriages, about which little was known. The abnormalities described in the stillbirth suggested trisomy 13,[8] and both parents underwent chromosome studies. The mother was found to carry a balanced chromosome translocation involving chromosomes 13 and 14, and it was postulated that the affected infant probably had the unbalanced translocation. Prenatal diagnosis was offered with the next pregnancy, and that infant was normal on prenatal testing and by physical examination at birth.

**2. Clinical Photographs**

A photograph of the face, body, and any unusual or questionable feature can supplement the written description. The physician who has cared for children with dysmorphic facial features can appreciate the value of such photographic documentation.

*Case Example.* A stillborn infant with marked shortening of the extremities, a protuberant abdomen, a small chest, and a hydropic appearance was delivered. Photographs and radiographs of this infant were obtained showing the classic external and radiographic appearance of achondrogenesis, a rare autosomal recessive skeletal dysplasia.[9] The risk of recurrent in future pregnancies of this couple is 25%, but the condition has been detected prenatally by a combination of ultrasound and fetal radiograph.[10] The mother had ultrasound and fetal radiograph with the next pregnancy, and the fetal bone structure appeared to be normal.

**3. Radiographs**

A full body radiograph (AP) as well as a radiograph of abnormal extremities may be useful. If a skeletal dysplasia is suspected, an AP view of the pelvis and lateral view of the lumbar spine are indicated.

*Case Example.* During the vaginal delivery of a stillborn infant, both tibiae and fibulae fractured and avulsed, resulting in near amputation above the ankles. The abdomen and cranium ruptured, and bullae were seen on the surface of the abdomen. A radiograph showed multiple healing fractures of virtually every bone, diagnostic of the severe "broad-boned" autosomal recessive form of osteogenesis imperfecta.[11] Without the radiographs, superficial examination of this infant could lead to the false conclusion that the infant was macerated, and that the connective tissue defects were only a consequence of the maceration.

**4. Chromosome Studies**

Since the failure rate of tissue culture is increased in stillborn infants, several different tissues should be obtained, such as blood, skin and pericardium. Blood samples for this purpose should be obtained promptly in a heparinized tube, kept at room temperature, and sent to a clinical cytogenetics lab as soon as possible. Other tissues should be obtained in a sterile manner and placed in separate vials of liquid tissue culture medium, which should be kept available in the hospital lab or morgue for use in these emergency situations.

*Case Example.* An infant expired at one day of age from severe hyaline membrane disease. Multiple congenital malformations were noted, including wide epicanthal folds, abnormally shaped ears, a short neck, ventricular septal defect and a duodenal web. A peripheral blood sample obtained for chromosome studies revealed the presence of a small extra chromosome fragment in each lymphocyte examined. Chromosome studies of both parents were normal. The parents requested prenatal diagnosis for chromosome studies with their next pregnancy, which resulted in a normal infant.

**5. Autopsy Examination**

The autopsy of the stillborn child should be performed as soon as possible to facilitate the acquisition of tissue for chromosome studies. Particular attention should be paid to external and internal malformations. Some of the previously mentioned studies, such as radiographs or photographs, can be done as part of the autopsy, but this should be clearly specified to the pathologist to avoid omission.

*Case Example.* A newborn had immediate respiratory difficulty in the delivery room and expired within hours despite attempts at mechanical ventilation. He had the flattened facies, large ears and joint abnormalities characteristic of Potter's syndrome, a term previously used to link this clinical appearance to bilateral renal agenesis, now used simply to describe infants with these features and to indicate oligohydramnios from any cause[12]. An autopsy exam revealed dysplastic polycystic kidneys, a form of kidney disease considered to be of sporadic occurrence.

## Discussion

The protocol described here is designed for use by physicians attending a stillbirth in a community hospital setting; a similar protocol could be used in evaluating any malformed liveborn infant who expires before a medical evaluation is complete. Only the chromosome analyses require laboratory facilities that may not be immediately available; for these, tissues for cell culture and karyotype can be sent to one of several laboratories in Virginia.

Poland and Lowry[4] utilized a similar protocol in a series of 204 stillbirths, of which 55 were abnormal, and of these, 26 (12.7% of the series total) had genetic malformations. Of the ill infants in their study who had postmortem radiographs, 22 revealed either an unexpected abnormality or a finding that led to a more specific diagnosis.

A study cited by MacLeod et al[13] further emphasizes the implications of stillbirth for subsequent pregnancies. As compared to a large control population, the incidence of stillbirth, handicapped infants or childhood death was increased in children born after one stillbirth; the incidences were even higher following two stillbirths. These authors stressed the need for accurate diagnosis to aid in specific counseling of a couple.

Several large series illustrate the value of chromosome studies in the evaluation of stillbirths.[14-18] In these series, 13 of 112 macerated stillbirths and 13 of 340 non-macerated stillbirths had chromosome abnormalities. It should be noted that the high incidence of tissue culture failure, particularly in the group of macerated stillbirths, makes it difficult to define the actual incidence of chromosome abnormalities in stillbirths.

Since a comprehensive evaluation of a stillbirth is expensive, Poland and Lowry suggest that chromosome studies be used mainly to confirm such suspect diagnoses as Down's syndrome, or in the presence of two or more malformations or ambiguous genitalia, or when there is a family history of fetal loss.[4] Such prior selection may miss some infants with chromosome abnormalities, however, as attested by the appearance of unanticipated abnormal results in published series.[4,18]

The importance of the traditional history, physical examination and written description cannot be overemphasized. Clinical photographs taken by practicing physicians can be sent to consultant dysmorphologists or geneticists for assistance in syndrome identification.

We would also like to stress the value of pursuing the evaluation of macerated stillbirths. There may be a tendency to be less aggressive in cases where the fetus died well before delivery and tissue autolysis has begun. Death in utero rather than intrapartum suggests an increased incidence of abnormalities intrinsic to the fetus; the chromosome studies cited above support this argument. For this reason the physical exam, photographs, radiographs and chromosome studies should be performed on all macerated stillbirths.

This suggested approach to the evaluation of a stillborn infant is designed to gather information that may prove helpful in diagnosis and family counseling. Both normal and negative findings are important. A diagnosis may not be readily apparent, but the documentation of the infant's condition will be available for future reference.

The counseling of the bereaved couple is extremely important, not only to convey information about the stillbirth but also to give the couple an opportunity to ask questions and express feelings of the guilt, anxiety or anger often associated with it. Several sessions are sometimes necessary to help the parents understand the information and to give them a chance to work through their grief.[2,3]

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# Morbidity and Mortality Conference: Thrombotic Thrombocytopenic Purpura

From the Medical College of Virginia/Virginia Commonwealth University.
Case Presentation by Harrison A. Farber, MD.
Clinical Discussion by H. St. George Tucker, III, MD.
Pathology Discussion by Katherine M. Jasnosz, MD.

## Presentation of Case

Dr. Harrison A. Farber: A 37-year-old black male was referred to the Medical College of Virginia Hospitals for plasmapheresis. He was in good health until 10 days prior to admission when he noted the onset of bilateral flank and abdominal pains. Antacids provided no relief, but rather nausea without vomiting developed. He was treated elsewhere with a composite of aluminum, magnesium hydroxide and simethicone (Mylanta®) and an unknown pill. No improvement occurred, and one day prior to admission he had separate episodes of hematemesis, melena and hematuria. At this time his hemoglobin was 8.5 gm/dl, hematocrit was 26.8 vol %, WBC was 11,000/cumm with 62% neutrophils, 7% bands and 29% lymphs. Coagulation studies were normal. The patient was referred to the McGuire Veterans Administration Hospital.

On admission there, he had a blood pressure of 140/80, a pulse of 80 with marked orthostasis, a respiratory rate of 29 per minute, and he was afebrile. Physical examination was remarkable mainly for right upper quadrant tenderness and decreased bowel sounds. His Hb was 8.5 gm/dl, WBC was 11,100, prothrombin time (PT) 11/11 sec., a partial thromboplastin time (PTT) 26/26, and platelet count 11,000/cumm. An SMA6 was remarkable for a serum $K^+$ of 5.7 mEq/l and BUN of 29 mg/dl. His serum creatinine was 2.3 mg/dl, LDH 183 U/l, SGOT 51 U/l and BUN of 29 mg/dl. Nasogastric suction disclosed coffee-ground material and small clots, followed by bright red blood. Treatment with iced saline lavage, fluid replacement, parenteral cimetidine, and trans-

From the Departments of Medicine and Pathology, Medical College of Virginia.

This is the first in a series of transcripts of the Morbidity and Mortality Conferences at the Medical College of Virginia. They are prepared under the direction of Richard J. Duma, MD, chairman, Division of Infectious Diseases. Correspondence should be addressed to Dr. Duma at Box 49, MCV Station, Richmond VA 23298.

Submitted 12-19-80.

**Table 1. Indications for Immediate Pheresis.**

Thrombotic thrombocytopenic purpura with life-threatening bleeding and/or thrombocytopenia (usually < 20,000/ml).
Goodpasture's syndrome with life-threatening pulmonary bleeding.
Hyperviscosity syndrome with severe bleeding and/or severe neurologic or cardiac impairment.
Thrombocythemia with bleeding.
Leukostasis.

fusion of four units of packed red blood cells and three units of fresh frozen plasma was begun. A peripheral blood smear suggested a hemolytic anemia. A bone marrow aspirate contained adequate megakaryocytes. Because of a hemolytic anemia, thrombocytopenia and renal dysfunction, a presumptive diagnosis of thrombotic thrombocytopenic purpura (TTP) was made; and the patient was referred back to MCV for plasmapheresis.

On arrival at MCV no significant additional information was obtained except for excessive alcohol and cigarette use. Physical examination disclosed a blood pressure of 140/100 and pulse 116 without orthostasis; respirations were 24 and his temperature was 100.4°F orally. Oropharyngeal exam revealed scattered petechiae on the tongue, gums and soft palate, and a 1 × 1 cm purpuric lesion on the right side of the tongue. Abdominal exam disclosed mild tenderness in the midepigastric region and decreased bowel sounds. Neurologic and skin examinations were unremarkable. Initial laboratory studies were Hb 9.2 gm/dl, Htc 28.2 vol%, WBC 10,400/cumm with 67% neutrophils, 11% bands and 15% lymphocytes. The platelet count was 28,000/cumm, PT was 12/13, PTT 26/26, and fibrinogen 355 mg/dl. Peripheral blood smear revealed marked red cell fragments, burr cells and schistocytes with small numbers of platelets. His SMA6 showed a serum $Na^+$ of 138 mEq/l, $K^+$ 4.8 mEq/l, $Cl^-$ 111 mEq/l, glucose 292 mg/dl, bilirubin 3.2 mg/dl, LDH 1818 U/l, SGOT 82 U/l, SGPT 33 U/l and alkaline phosphatase 90 mU/ml. Urinalysis revealed 2+ protein, 4+ blood by dipstick and numerous RBC's on microscopic study. Chest x-ray, abdominal films and EKG were all within normal limits. Additional studies revealed his reticulocyte count to be 3.6% of his circulating RBCs. His plasma Hb was 23 mg/dl but was hemosiderin negative. LE prep, VDRL, rheumatoid factor, antinuclear antibody (ANA) titer, direct Coomb's test, and hepatitis screen were all negative. $C_3$ level was 68%, $C_4$ was 42%, and Clq binding assay was 1.07%.

He was treated with 6 units of fresh frozen plasma and was begun on aspirin and dipyridamole.

On the second hospital day plasmapheresis was begun with exchange of approximately 2,500 cc of plasma. During plasmapheresis the patient became restless. Laboratory studies were essentially unchanged except for a rise in the platelet count to 45,000. Physical exam now disclosed a right 7th nerve palsy.

Between late on the second and early on the third day, the patient developed an altered mental status with acute restlessness, diaphoresis and a tachycardia. Arterial blood gases disclosed a $pO_2$ of 80 mmHg, $pCO_2$ of 23 mmHg, pH 7.29 and bicarbonate of 11.0 mEq/L. Shortly thereafter the patient suffered cardiac arrest and resuscitation was unsuccessful. An autopsy was performed.

**Use of Plasmapheresis**

DR. DAVID E. SHARP: The use of automated plasmapheresis or more properly, plasma exchange transfusion, has been advocated for treatment of more than 30 different clinical conditions. The major ones which merit consideration are listed in Table 1. Few diseases respond to plasma exchange as well as thrombotic thrombocytopenic purpura, and once the quintad of signs and symptoms of TTP are established, plasma-exchange transfusion is usually instituted during the next working day.

The total volume of plasma to be exchanged is normally equal to the patient's plasma volume, calculated roughly as 40 ml per kilogram body weight. Although in the latter stages of the exchange the patient's native plasma is progressively diluted by the replacement fluids and anticoagulants, the normal plasma exchange transfusion replaces approximately 60% of the patient's native plasma. Multiple daily plasma exchanges are generally preferred to longer, single, exhaustive plasma exchanges.

The complications most commonly associated with plasma exchange are related to the sodium citrate anticoagulant and include tingling, perioral paraesthesias and chills; however, they are easily reversible. An uncommon complication, but generally

**Table 2. Causes of Microangiopathic Hemolytic Anemia.**

Disseminated intravascular coagulation.
Thrombotic thrombocytopenic purpura.
Cardiovascular prosthetic devices.
Dissecting aneurysm or A-V fistula (rarely).
Vasculitis (rarely).
Malignant hypertension.
Hemolytic-uremic syndrome (pediatric age group).
Eclampsia.
Widespread carcinoma.

more serious, is the hypovolemia which occurs in severely anemic patients. Potentially fatal complications, such as thromboembolus, air embolism and extracorporeal clotting, are extremely rare. It should be noted that patients with classic hemophilia and/or severe thrombocytopenia do not experience serious bleeding as a complication of plasma transfusion.

## Clinical Discussion

Dr. H. St. George Tucker, III: My discussion will focus on two aspects of thrombotic thrombocytopenic purpura, which I believe is the correct diagnosis in this case: first, how to make this diagnosis; and second, how to treat this disorder. Treatment is especially worthy of discussion, as major changes have occurred in therapy in the past four years. Although many questions remain unanswered, it seems clear that newer therapeutic approaches have reduced the mortality of TTP from 90% to a much lower figure, perhaps 20-40%.

This previously well patient developed a prodrome of flank and abdominal pain of ten days' duration. The simultaneous development, as evidenced by history, of melena and hematuria, should have alerted one to the possibility of a platelet deficiency or dysfunction—either of which characteristically causes mucosal hemorrhage, as seen here involving two systems. After his initial evaluation at the VA Hospital, the following valuable information was available: the patient had severe thrombocytopenia, azotemia and a moderate anemia, and his prothrombin time and partial thromboplastin time were normal.

*The blood smear was the key to the diagnosis,* I believe, the most specific piece of diagnostic information available, and I shall discuss it in detail.

I shall assume that the blood smear obtained at the VA Hospital resembled that seen the next day at the Medical College of Virginia. This smear (Fig. 1) revealed helmet cells and fragmented appearing erythrocytes (schistocytes)—the smear of microangiopathic hemolytic anemia (MAHA). It also confirmed the presence of severe thrombocytopenia. This smear suggested a condition in which erythrocytes were being mechanically damaged in the circulation: by shear forces (as with defective valvular prostheses); by being torn on fibrin strands[1]; and/or perhaps by contact with an abnormal endothelium. The differential diagnosis of conditions which might be associated with such a smear is shown in Table 2. Some of these were readily excluded in this patient (e.g., lack of cardiovascular prosthetic device, advanced carcinoma or malignant hypertension).

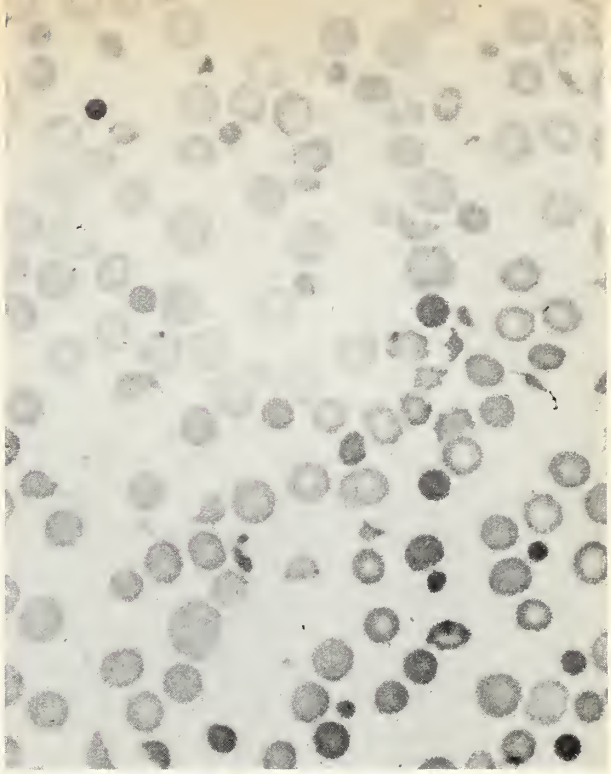

**Fig. 1. Photomicrograph of peripheral blood smear in microangiopathic hemolytic anemia (MAHA), showing helmet cells and bizarrely shaped RBC fragments. Large polychromatophilic cells reflect elevated reticulocyte count.**

MAHA, which rarely may be associated with dissecting aneurysm, was not considered because of this man's age and especially in the absence of Marfan's syndrome. Vasculitis, another rare cause of MAHA, was unlikely, as the patient had no skin lesions or other features of vasculitis. And although MAHA commonly occurs in the syndrome of disseminated intravascular coagulation, this diagnosis was also unlikely because of normal clotting times with profound thrombocytopenia. By exclusion then, TTP should have emerged as the most likely diagnosis on the basis of the smear alone.

Did he fit the diagnostic criteria for thrombotic thrombocytopenic purpura? That is, microangiopatic hemolytic anemia, thrombocytopenia, neurologic abnormalities, abnormal renal function or urinary findings, and fever. When first seen at the VA Hospital, he lacked fever and neurologic abnormalities both by history and physical examination. In an excellent review of over 200 cases of TTP, Amorosi and Ultmann[2] discussed this expected pentad. Although fever is seen *at some point* during the course in 98% of TTP cases, it was present initially in only 55%. As for neurologic abnormalities, 60% of patients had a history of some neurologic symptoms (headache, change in mental status, focal deficit), and during the course of the illness over 90% developed such prob-

lems; however, the neurologic deficits were well known to be ephemeral, and an intact neurologic exam at one point was not incompatible with the diagnosis of TTP. Thus, TTP remained the most likely diagnosis at the time of this patient's presentation.

The etiology of thrombotic thrombocytopenic purpura is unknown. There is no convincing association with possible predisposing infections, drugs, and such, despite numerous isolated reports. There may be a slight association of TTP with systemic lupus erythematosis (SLE)[2] and with pregnancy[2,3], although these are absent in most cases. The pathogenesis is not understood. Recent research arising from therapeutic success[4] suggests that the plasma of TTP patients lacks a normally present factor which inhibits spontaneous platelet aggregation; the absence of this factor is thought to allow widespread platelet aggregation, resulting in the characteristic disseminated thrombotic lesions. These lesions are usually found in the heart, brain, kidneys, pancreas, spleen and adrenal glands. The nature of the inhibiting factor and the mechanism of its loss remains to be determined.

Tissue biopsy from various sources is advocated as a diagnostic aid. However, a recent study and review[5] points out the lack of sensitivity of such biopsies. I don't believe a biopsy of any readily available tissue helps. The diagnosis of TTP is a clinical one.

Evaluation of therapy in TTP is extremely difficult because of the rarity of the disorder (controlled or even consecutive series have been lacking) and because of its high mortality rate, which has understandably led clinicians to treat with anything of possible benefit. By the 1970s splenectomy was the mainstay of therapy[6]. Although splenectomy is reportedly beneficial in many cases, its true value is difficult to assess for the reasons stated above. Recommendations for splenectomy are based largely on isolated case reports, but there is little doubt that this literature is heavily biased in favor of successful reports. Even more difficult to evaluate is the role of corticosteroids, which have been used in the great majority of reported cases, fatal and non-fatal.

The use of anti-platelet agents was recommended in a recent editorial[7]. Although the same problems beset analysis of this therapy, anti-platelet therapy can be defended both by results reported in the available literature and on theoretical grounds[4].

The greatest advance in therapy has been the use of blood or plasma exchange. Bukowski et al[8] in 1976 reported impressive survival in a consecutive series of TTP patients using exchange transfusion as the main treatment. Next, they had good results using plasmapheresis[9]. The group from Miami[4,10] successfully employed plasma infusion. One case report from this group[10] demonstrated impressively that the addition of a component of normal plasma, rather than the removal of a harmful substance, seemed to be the key to remission. The in vitro experiments[4] which supported this notion were mentioned.

A recent series[11] reported 6/7 survivors in a consecutive series of TTP patients treated with plasmapheresis and anti-platelet agents. Our experience at MCV has been comparable. In the last two years, nine patients with TTP have been treated with plasmapheresis and anti-platelet agents; seven have gone into complete remission. The case presented today was one of the two failures. These survival rates represent a truly dramatic change in the outcome of this notorious illness.

My recommendations for therapy for thrombotic thrombocytopenic purpura are the following. *Plasma infusion*, as much as 10-12 units/day (if tolerated), should be initiated as soon as the diagnosis is made. *Plasmapheresis* should be the next step, since few patients can tolerate large volumes of plasma for long. The replacement fluid should be plasma. We exchange about 2 liters daily until the patient is stable and clearly improving, at which point we decrease the frequency of exchange. Many questions remain unanswered concerning the frequency of plasmapheresis, dose of plasma, etc. If plasmapheresis is not available, the patient may be given plasma exchange transfusions manually. I believe *antiplatelet* drugs are indicated also. We and others believe that aspirin 1.2 gm/day and dipyridamole 100 mg qid (although dextran-70[3] is probably as useful) are effective.

Splenectomy should be reserved for the patient who does poorly on the above regimen. Since there are several survivors in the literature who did not respond to the prescribed regimens for two weeks or more, I would not recommend splenectomy without clear-cut signs of deterioration. The literature does not support the efficacy of corticosteroids.

The patient today received the therapeutic approach suggested. Why did he not respond? He might have received more plasma and the anti-platelet drugs might have been given earlier, but such commentary is speculative.

Why did he die? The most common cause of death in TTP is neurologic—high fever, seizures, coma and death. This was not the case here. A picture of adult respiratory distress syndrome (ARDS) has been described in TTP[12]; if this had developed acutely, it may have contributed to this patient's demise. I can only list a series of additional possibilities: myocardial dysfunction, infarction, or arrhythmia, acute cardiogenic or non-cardiogenic pulmonary edema, a large gastrointestinal hemorrhage—any of these could

**Fig. 2. Heart muscle, revealing multiple microthrombi occluding vessel lumina (H&E, X176).**

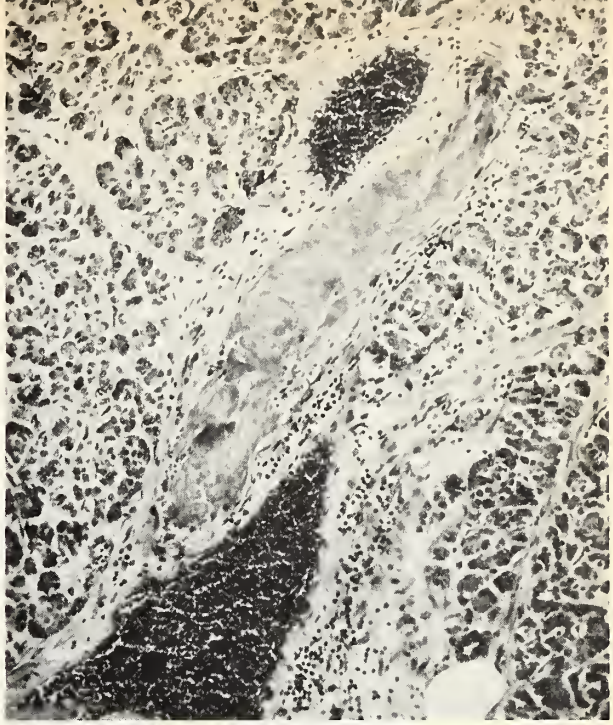

**Fig. 3. Pancreas, revealing microthrombus (H&E, X160).**

have contributed to the final clinical picture as it was described.

## Pathology Discussion

Dr. Katherine M. Jasnosz: The autopsy was performed six hours after the patient's death. External examination of the body was remarkable for the absence of petechial or purpuric hemorrhagic mucocutaneous lesions. Upon opening the chest cavity, bilateral serosangunious pleural effusions were present, with 1500 cc on the right side and 500 cc on the left. The pericardial sac contained 300 cc of straw-colored fluid and the peritoneal cavity 500 cc of ascitic fluid.

The most dramatic gross lesions were present in the heart, with multiple diffuse petechial and purpuric hemorrhagic lesions over the entire epicardial surface. Diffuse minute hemorrhages also were seen in the myocardium and subendocardium. The lungs were hyperemic and edematous, weighing 1100 grams (normal = 700-900 grams). Minimal atherosclerotic disease was evident in the abdominal aorta. The kidneys had a finely granular surface with multiple deep cortical scars, compatible with chronic pyelonephritis. Mucosal hyperemia was evident in the stomach and urinary bladder. The brain was grossly unremarkable, without evidence of hemorrhagic lesions or thrombi.

Histologic examination of the tissues revealed *widespread microthrombi occluding vessel lumina in multiple organ systems*, most dramatically in the heart (Fig. 2), but also including the lungs, pancreas (Fig. 3), adrenal glands, stomach and kidneys. Additional findings noted on microscopic examination included diffuse interstitial hemorrhages and focal ischemic fibrosis in the heart, abundant hemosiderin-laden macrophages (heart failure cells) in the alveolar spaces of the lungs, and chronic inflammatory interstitial infiltrates in the kidneys, confirming the presence of chronic pyelonephritis. Representative sections of the brain and brain stem were unremarkable and showed no evidence of microthrombus occlusion of blood vessels.

Thrombotic thrombocytopenic purpura is characterized by disseminated microthrombi found primarily in the heart, brain, pancreas, adrenal glands and kidneys. Other organs may be involved but to a lesser extent. The microthrombi are composed predominantly of platelets and fibrin and may occlude the lumina of small arteries, venules and capillaries. Involved blood vessels show no evidence of vasculitis, although endothelial proliferation and aneurysmal dilatation may be seen in the vicinity of these lesions. The pathologic lesions seen in thrombotic thrombocytopenic purpura are indistinguishable from those seen in disseminated intravascular coagulation (DIC), and a distinction must be based on the clinical picture. Although disseminated intravascular coagulation presents with similar clinical findings, it is not ordinarily characterized by hemolysis of the severity seen in thrombotic thrombocytopenic purpura.

*Concluded on page 426.*

# New in Virginia: The Shock-Trauma Emergency Technician

D. D. Rockwell, RN, R. S. Crampton, MD, S. J. Mapstone, RN, J. E. Grant, RN, and R. F. Edlich, MD, *Charlottesville, Virginia;* J. M. Garvin, Jr., MD, and K. P. Miller, BS, *Roanoke, Virginia*

ACCIDENTAL injuries are the fourth leading cause of death in Virginia and the leading cause of death in children and young adults[1]. The major causes of fatalities are automobile accidents, followed by drownings. Most deaths from automobile accidents occur in rural communities at considerable distances from the nearest hospital[2]. Lacerations and gunshot wounds likewise often occur in areas remote from emergency care. Prehospital treatment often determines outcome for the victim of an accident[3]. Certain medical emergencies which are amenable to prompt out-of-hospital intervention include anaphylaxis, status asthmaticus, overdose with respiratory depression, hypoglycemia from insulin or alcohol, and ischemic chest pain. In Virginia, a "recognition program" of the Bureau of Emergency Medical Services (EMS) permits specific advanced training for the certified emergency medical technician—ambulance (EMT-A) to care for the victims of accidents and a variety of medical emergencies[4]. We hope that the present report will encourage Virginia physicians to initiate in their communities this training program, which is a new advance of emergency care to an intermediate level, the shock-trauma emergency medical technician.

From the Thomas Jefferson Emergency Medical Services Council, Charlottesville, the Western Virginia Emergency Medical Services Council, Roanoke, and the Emergency Medical Service, University of Virginia Medical Center, Charlottesville VA 22908. Address correspondence to Dr. Edlich at the Center.

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## Training Program

The development of this training program for a new level, the intermediate emergency medical technician (EMT), was a joint effort among physicians and nurses in the Thomas Jefferson and Western Virginia Emergency Medical Service (EMS) Councils in collaboration with the Subcommittee on Advanced Life Support of the Bureau of EMS, State Department of Health. This program was specifically designed to meet the needs of the rural community which cannot presently afford radiotelemetry communication equipment nor the time to acquire the necessary skills to use it. The course was developed utilizing modules I, II, III, V, VI, VIII, and IX of the National Training Course[5] and Caroline's text[6]. The curriculum of the Virginia "recognition program" for the shock-trauma EMT includes 42 hours of didactic training and 24 hours of clinical training within the

hospital. The recommended size of a class is 20-25 students, not to exceed 30 people. Each student must attend all sessions of the course.

The course requires direction by a physician approved by the local medical society. The director should have extensive experience in emergency care and currently practice critical care medicine. Ideally, this physician should also have successfully completed the basic and advanced life support courses of the American Heart Association. The physician director or other physicians responsible for emergency medicine in the region must serve as medical control officers. Medical control is the direction by the physician of the procedures to support life performed by EMTs in the field. On-line medical control refers to direction of EMTs in the field via radio or telephone. Off-line medical control by the physician involves responsible medical direction of EMTs through the use of protocols of treatment, design of the EMS system, review of emergency cases, evaluation, training, and primary and continuing education. The physician director should notify the staff officers of the Bureau of Emergency Medical Services before initiating this new type of intermediate training for EMTs.

We recommend that the course for the shock-trauma EMT be coordinated by a registered nurse experienced in emergency care. The nurse should have had prior training to include the standard EMT-A course[7] and an advanced cardiac life support course (e.g., American Heart Association). The nurse-coordinator should be prepared to conduct the didactic portion of the course at the local rescue squad house.

**Educational Objectives**

The cognitive objectives include an understanding of the pathophysiologic consequences of significant traumatic injuries and selected medical emergencies as well as the therapeutic interventions to stabilize the patient's condition. The psychomotor skills which the student must master include a limited physical examination, and preparation and administration of intravenous, intramuscular and subcutaneous medication. Oral and sublingual drugs also can be used. The "selected skills recognition program" of the Bureau of EMS for use of the pneumatic counter pressure device (MAST trousers) and for use of the esophageal obturator airway are essential components of the education of the shock-trauma EMT[4]. Selection of the drugs for use by the shock-trauma EMT in a regional program is the responsibility of the physician who acts as the off-line medical control officer. In our shock-trauma EMT course and EMS system, we have initiated during on-line medical control by the physician the use of intravenous solutions of dextrose 5%, normal saline and lactated Ringer's. We also use subcutaneous epinephrine, intravenous dextrose 50%, sodium bicarbonate, naloxone and methylprednisolone, and sublingual nitroglycerin. Thus, hypovolemic shock from traumatic injury, gastrointestinal hemorrhage, dehydration and many other causes can be treated. Anaphylaxis, status asthmaticus, acidemia, hypoglycemia, overdose with respiratory depression and ischemic chest pain all can be managed.

**Educational Affiliation**

The conduct of the course for the shock-trauma EMT is the responsibility of the physicians in the local and regional EMS. Ideally, the physicians must outline the mechanisms for off-line and on-line medical control and for accountability of the interaction between the physician and the shock-trauma EMT[8]. Utilization of medical protocols for the prehospital treatment of the victims of accidents and emergencies is mandatory. Medical decisions on hospital categorization should be made with clear identification of those institutions with facilities and personnel to care best for patients with special critical injuries[9] or medical problems. When hospitals are so identified, ambulances should then bypass those facilities closest to the accident to take the most seriously ill or injured patient directly to the secondary or tertiary care hospital unless intermediate stabilization beyond the level of care by the shock-trauma EMT seems appropriate to the on-line medical control officer.

**Evaluation**

We assess knowledge, skill and overall competence of the students. Written exams are administered, since they are the most convenient testing mechanism of knowledge. The examination consists primarily of multiple choice questions. The exam is validated by comparing answers to questions among individual students and among groups of students to identify the causes of errors on the test questions.

The ability of students to perform in the field is judged by a formal practical test of skills. For any skill, an initial definition of the required performance is established, using step-by-step criteria. Constraints of time are an important part of the test. Proctors for this exam are selected for their expertise in the required skill. The best, the brightest and the fastest performance is the goal. Finally, the examiners attempt to evaluate how each student is able "to tie it all together, " that is, to perform effectively in the newly developed, more advanced role of an intermediate EMT.

Retention of knowledge has been evaluated with

repeated written examinations. The average loss of didactic knowledge was 20% within a nine-month period. This level of retention of knowledge is slightly lower than that reported by Latman and Wooley in their evaluation of ambulance personnel[10]. Students failing either written or practical examination may be reevaluated and retested within 60 days. Students failing the second test are required to attend another course. The names of the students who successfully complete the course are forwarded to the Bureau of EMS, which issues certificates and patches to the shock-trauma EMT under the auspices of its "recognition program"[4].

**Continuing Education**

The shock-trauma EMT must maintain proficiency by starting a minimum of two intravenous infusions per month, either in the field or in the hospital. Monthly meetings are held to review all shock-trauma episodes. The shock-trauma EMTs meet with the instructor-coordinator for advanced life support at their local squad houses. At this time a didactic presentation is also made about a relevant aspect of emergency medicine. A refresher course and examination is required every two years to maintain certification as a shock-trauma EMT. The refresher course mandated by the Bureau of EMS is at least six hours in length and consists of both lectures and practical demonstrations. We feel that a 12- to 15-hour refresher course is desirable and have conducted our program accordingly. A written and practical examination is administered by the physician director at the end of the refresher course.

**Case Reports**

*Case 1.* A 28-year-old white male received serious head injuries rated as class 4 (injury severity scale 20) by the 1980 modification of the abbreviated injury scale[11–13] in a tractor accident 25 miles from the hospital. The shock-trauma EMT arrived 14 minutes after the call for help and recorded systolic blood pressure 60 mm Hg. The on-line medical control physician requested infusion of lactated Ringer's solution and intravenous injection of 2 gm of methylprednisolone sodium succinate. During transport the patient's systolic blood pressure rose to 110 mmHg. Fifty-two minutes after the call for aid, the patient arrived at the emergency department with his systolic blood pressure then 140 mmHg. The patient was hospitalized 16 days for a left frontal skull fracture extending into the base of the anterior fossa and bilateral opthalmoplegia.

*Case 2.* A-55-year old, insulin-dependent, diabetic, black female collapsed 40 miles from the hospital. The shock-trauma EMT arrived 15 minutes after the call for help. During on-line medical control by the physician, the shock-trauma EMT cannulated a vein percutaneously, obtaining a blood sample for serum glucose, and then administered 25 g of dextrose (50%). The patient became responsive and able to communicate. Ninety minutes after the call for aid, the patient entered the emergency department, where her serum glucose was 124 mg/100 ml. The hypoglycemia induced by the patient's insulin was 26 mg/100 before receipt of 50% dextrose. She was sent home after 135 minutes of observation and treatment in the emergency department.

*Case 3.* A 46-year-old black male collapsed, bleeding from severe lacerations of the neck and face 45 miles from the hospital. The shock-trauma EMT arrived 26 minutes after the call for help. The blood pressure was undetectable. The on-line medical control physician requested infusion of one L of normal saline. During transport, the patient's systolic blood pressure became appreciable at 120 mmHg. Upon arrival in the emergency department 91 minutes after the call for aid, the patient's systolic blood pressure was 110 mmHg. He then received 0.5 L of packed red blood cells, 0.25 L of synthetic plasma and 5 L of normal saline. The patient remained in the hospital for two days.

*Case 4.* A 19-year-old black female was stung by a bee 31 miles from the hospital. She soon developed a severe-to-shock reaction by the Frazier scale[14]. The Shock-trauma EMT arrived 23 minutes after the call for help and recorded the systolic blood pressure as 80 mmHg. The on-line medical control physician prescribed 0.3 ml of subcutaneous epinephrine 1:1000. During transport in the ambulance, her systolic blood pressure rose to 90 mmHg. Eighty-two minutes after the call for aid, she arrived at the emergency department with a systolic blood pressure of 110 mmHg. She remained there for observation and treatment for 160 minutes and was sent home.

**Discussion**

These four case reports indicate that the higher quality of care rendered by the shock-trauma EMT probably reduces morbidity and mortality. While no absolute proof exists that outcome was altered, each patient improved clinically after interventions carried out by the shock-trauma EMT during on-line medical control. This type of assessment constitutes the approach of "identifying major apparent problems and correcting them"[15].

Unpaid volunteer rescue squad personnel who are willing to respond to emergencies quickly and efficiently are the foundation of the EMS system in Vir-

ginia. The Bureau of EMS has provided standards and mechanisms of certification for various levels of prehospital manpower[4]. Techniques of basic life support involved in the care and transportation of the sick and injured are taught in the 81-hour EMT course[7,16]. A 160-hour course has been developed to prepare the rescue squad personnel to care for the cardiac victim[4]. This advanced life support program is limited, however, to those local or regional EMS systems which have radiotelemetry or can afford to add it to their communication systems. Radiotelemetry is not yet available in most rural communities in Virginia.

The new shock-trauma EMT program here reported focuses upon the out-of-hospital care of the victims of accidents and selected medical emergencies using on-line medical command. This process of treatment involves only two-way voice communication by radio or telephone rather than telemetry. The short length of this training program confers an additional advantage by making it ideally suited for volunteer rescue squads in rural communities.

Since its inception in July, 1978, the shock-trauma EMT training program has been enthusiastically received by many rescue squads throughout the Commonwealth. Today more than 380 shock-trauma EMTs from over 20 rescue squads have been certified by the Bureau of EMS. This burgeoning group of new physician extenders requires careful supervision by physicians during off-line and on-line medical control. In the supervisory role, the physician must review all emergency episodes and monitor compliance to established protocols of treatment. After identification of any problems, the physician must change protocols for treatment, triage or operation of the system or its relevant components. This continuing review ensures that quality medical care is rendered by the shock-trauma EMT at the scene of an accident or a medical emergency.

**Summary**

Accidental injuries remain a major cause of death in Virginia. Since prehospital management frequently determines final outcome, a special training program has been devised to teach rescue squads a new level of intermediate care for these patients at the scene of the accident. The medical emergencies of anaphylaxis, status asthmaticus, overdose, hypoglycemia and ischemic chest pain are also managed by early out-of-hospital treatment. The physician serves as an on-line and off-line medical control officer. The graduate of this new type of intermediate program, the shock-trauma EMT, has been enthusiastically received by rescue squads in Virginia.

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# Utilization of Family Practice Data

Russell M. Boyle, MA, and Susan L. Kropp, *Richmond, Virginia*

FAMILY MEDICINE routinely generates a wealth of demographic, billing and morbidity data from patients. An increasingly popular method to manage these data is the family medicine data system, defined as the organized collection and automated storage and analysis of data concerning all aspects of this specialty. Applications of such systems can be grouped in the familiar triad of patient care, education and research, but actual usage is often disappointingly less than the potential. The purpose of this paper is to present examples of relevant utilization of a state-wide data system by family physicians in private practice and to illustrate the value of these systems.

**Background**

The Virginia Family Practice Data System[1,2] is a large-scale network in which a minimal set of data on all patients is continuously collected on a daily worksheet. Problems are encoded by the use of the International Classification of Health Problems in Primary Care (ICHPPC)[3]. Initiated in 1973 at three residency programs of the Department of Family Practice, Medical College of Virginia/Virginia Commonwealth University, the system has grown to include five "teaching" practices in which residents and faculty record data on a mandatory basis and eight "community" practices in which family physicians voluntarily participate. These latter practices, six of which range from suburban to extremely rural locations in Virginia while two are out-of-state, are the focus of this paper.

One of the most conspicuous products of this system is the "Virginia Study"[4], a presentation of the frequency and distribution of problems seen in family practice. This has been used to develop curricula in undergraduate and graduate education[5] and as a baseline comparison for numerous descriptive studies[6-8]. Several research efforts have been associated with the data system, with such topics as estimating the size of the practice population[9,10], continuity of care[11] and clinical work in diabetes mellitus, otitis media and obesity. Finally, periodic and special request reports comprise a major portion of information dissemination.

**Application of the Data System**

Routine reports for community practitioners are produced twice yearly. The format is straightforward—a delineation of all problems recorded during the six-month period by age cohort and sex, presented by ICHPPC categories (infective and parasitic diseases, neoplasms, etc.) as well as by ranked order of occurrence. Thus, participating physicians can evaluate their clinical workload, noting problems most frequently recorded along with those not reported during a given period. Comparisons can also be made between problems seen by physicians as opposed to physicians' assistants to determine if time for each professional is being utilized efficiently.

Calling attention to problems which are not recorded can also be useful information. One obvious application concerns continuing medical education: A physician may recognize that experience with specific problems (anorexia or tinnitus, for example) is less than desired, and subsequent continuing medical

From the Departments of Biostatistics and Family Practice, Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Mr. Boyle at Box 32, MCV Station, Richmond VA 23298.

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education courses could be planned according to that recognition.

Utilization of these periodic reports in research is limited only by the imagination of the recording physician. Reports generate interesting questions (What is the most effective management of asthma? What problems are associated with "malaise and fatigue"? What type of patient education should be offered to patients with low back pain?) which evolve into research hypotheses. Further, the physician's own data can either corroborate or dispute findings reported in the literature. In such research projects, assistance in conceptualization, research design and analysis is available from the Medical College of Virginia staff.

Special request reports are more application-specific. As the name implies, these reports are solicited by participating family practitioners to provide information concerning a particular topic. Several physicians have asked for lists of "high risk" patients, those with certain problems or of a given age cohort or sex who must be identified for a variety of reasons; some examples follow. A listing of all patients under 6 years of age has been used to monitor immunization status; as part of a special intervention program in pediatric obesity, this report was refined to include only obese children. Finally, patients with otitis media have been identified for audiometry screening.

In a related clinical example, Smith, Kline and French Laboratories recently recalled their brand of ticrynafen (Selacryn®) because of reported hepatic injury. Requests from several recording physicians for lists of patients with hypertension and/or congestive heart failure were received immediately following this notification. These reports made it possible to identify quickly patients who had been taking this medication, thus preventing possible complications.

Use of special reports in education has been most prevalent in connection with recertification examinations. Physicians have requested listings of patients with various problems, and subsequent chart audit has been greatly facilitated. Unfortunately, research applications have been infrequent; this is a result of the little time community family practitioners have to devote to personal research. Comparative studies in referral rates and the apparent interrelationship among depressive neurosis, anxiety neurosis and headaches represent reports which have provided data for research endeavors.

**Summary**

Family physicians are well aware of the burgeoning amount of patient data which must be handled in private practice. Thus, the critical need to collect selectively and manage efficiently these data should be obvious. The Virginia Family Practice Data System represents a practicable means to accomplish these objectives. This system maintains only essential data, records data continuously on all patients seen by all participating physicians for an extremely valuable longitudinal data base, and is relevant in clinical, educational and research applications.

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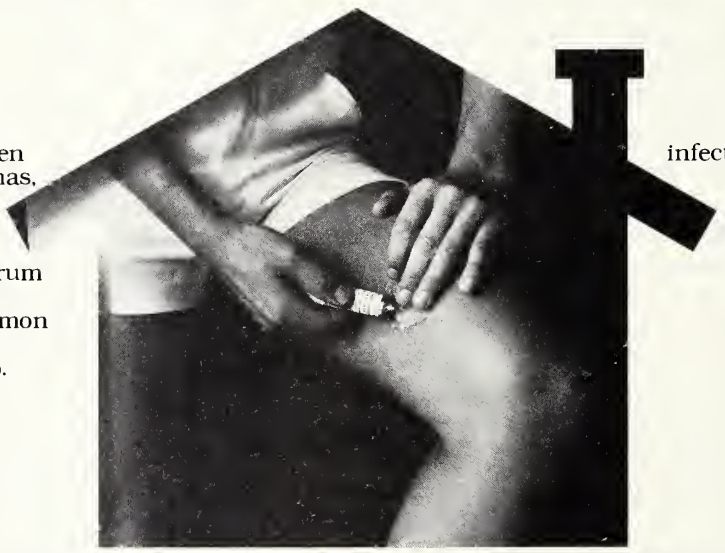

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**WARNING:** Because of the potential hazard of nephrotoxicity and ototoxicity due to neomycin, care should be exercised when using this product in treating extensive burns, trophic ulceration and other extensive conditions where absorption of neomycin is possible. In burns where more than 20 percent of the body surface is affected, especially if the patient has impaired renal function or is receiving other aminoglycoside antibiotics concurrently, not more than one application a day is recommended.

When using neomycin-containing products to control secondary infection in the chronic dermatoses, it should be borne in mind that the skin is more liable to become sensitized to many substances, including neomycin. The manifestation of sensitization to neomycin is usually a low grade reddening with swelling, dry scaling and itching; it may be manifest simply as a failure to heal. During long-term use of neomycin-containing products, periodic examination for such signs is advisable and the patient should be told to discontinue the product if they are observed. These symptoms regress quickly on withdrawing the medication. Neomycin-containing applications should be avoided for that patient thereafter.

**PRECAUTIONS:** As with other antibacterial preparations, prolonged use may result in overgrowth of nonsusceptible organisms, including fungi. Appropriate measures should be taken if this occurs.

**ADVERSE REACTIONS:** Neomycin is a not uncommon cutaneous sensitizer. Articles in the current literature indicate an increase in the prevalence of persons allergic to neomycin. Ototoxicity and nephrotoxicity have been reported (see Warning section).

Complete literature available on request from Professional Services Dept. PML.

Wellcome

**Burroughs Wellcome Co.**
Research Triangle Park
North Carolina 27709

## RESULTS OF ORAL THERAPY revealed a high percentage of treatment failures with penicillin V potassium, but *no* failures with Tegopen.

| | | Given Tegopen® *(cloxacillin sodium)* | Given *penicillin V-K* |
|---|---|---|---|
| ***Staphylococcus aureus*** | (78 patients) | 39 | 39 |
| Returned to clinic at one week | | 29† | 38† |
| Treatment failure at one week | | 0 | 18 (47.4%) |
| ***Staphylococcus aureus* and *Streptococcus pyogenes*** | (9 patients) | 4 | 5 |
| Returned to clinic at one week | | 4 | 5 |
| Treatment failure at one week | | 0 | 2 (40%) |
| **No initial bacterial growth** | (14 patients) | 9 | 5 |
| All 14 healed, regardless of which antibiotic was administered. | | | |
| **Beta-hemolytic *Streptococcus*** | (1 patient) | 0 | 1 |
| **TOTALS:** | **102 patients** | **52 patients** | **50 patients** |

†Eleven patients did not return for their one-week checkup. These were all called by telephone, and their families reported the lesions had healed. One patient was dropped from the study, early, because of adverse reaction to medication.

## STUDY: DESCRIPTION/PROTOCOL

- 102 nonselected subjects, with initial bacteriology as follows: 77% *Staphylococcus aureus,* 9% mixed *Staphylococcus aureus* and *Streptococcus pyogenes,* and 1% beta-hemolytic *Streptococcus.*‡
- All patients were given randomized therapy—Tegopen capsules or oral solution, or penicillin V-K tablets or oral solution, in recommended dosages according to body weight.
- All patients were evaluated after one week's therapy. If there was no improvement, therapy was switched to the other antibiotic. The "other antibiotic" proved to be Tegopen 100% of the time because no treatment failures had occurred with Tegopen.
- A final assessment of progress was made two weeks after initiation of Tegopen therapy.

‡The remainder, to equal 100%, consisted of 14 patients (13%) who exhibited no initial bacterial growth. These 14 were all healed, whether given Tegopen or penicillin V-K.

# TEGOPEN®
# (cloxacillin sodium)
## –effective therapy for staph infections of the skin and skin structures

**WARNING:**
Serious and occasionally fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin therapy. Although anaphylaxis is more frequent following parenteral therapy it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with a history of sensitivity to multiple allergens.

There have been well documented reports of individuals with a history of penicillin hypersensitivity reactions who have experienced severe hypersensitivity reactions when treated with a cephalosporin. Before therapy with a penicillin, careful inquiry should be made concerning previous hypersensitivity reactions to penicillins, cephalosporins, and other allergens. If an allergic reaction occurs, the drug should be discontinued and the patient treated with the usual agents, e.g., pressor amines, antihistamines, and corticosteroids.

Safety for use in pregnancy has not been established.

**PRECAUTIONS:**
The possibility of the occurrence of superinfections with mycotic organisms or other pathogens should be kept in mind when using this compound, as with other antibiotics. If superinfection occurs during therapy, appropriate measures should be taken.

As with any potent drug, periodic assessment of organ system function, including renal, hepatic, and hematopoietic, should be made during long-term therapy.

**ADVERSE REACTIONS:**
Gastrointestinal disturbances, such as nausea, epigastric discomfort, flatulence, and loose stools, have been noted by some patients. Mildly elevated SGOT levels (less than 100 units) have been reported in a few patients for whom pretherapeutic determinations were not made. Skin rashes and allergic symptoms, including wheezing and sneezing, have occasionally been encountered. Eosinophilia, with or without overt allergic manifestations, has been noted in some patients during therapy.

**USUAL DOSAGE:**
Adults: 250 mg. q.6h.

Children: 50 mg./Kg./day in equally divided doses q.6h. Children weighing more than 20 Kg. should be given the adult dose. Administer on empty stomach for maximum absorption.

*N.B.*: INFECTIONS CAUSED BY GROUP A BETA-HEMOLYTIC STREPTOCOCCI SHOULD BE TREATED FOR AT LEAST 10 DAYS TO HELP PREVENT THE OCCURRENCE OF ACUTE RHEUMATIC FEVER OR ACUTE GLOMERULONEPHRITIS.

**SUPPLIED:**
Capsules—250 mg. in bottles of 100. 500 mg. in bottles of 100.
Oral Solution—125 mg./5 ml. in 100 ml. and 200 ml. bottles.

BRISTOL®
Bristol Laboratories
Division of Bristol-Myers Company
Syracuse, New York 13201

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TUCKER/PURPURA continued from page 409.

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# CYCLAPEN®-W (cyclacillin)

**Indications**

*Cyclocillin hos less in vitro octivity thon other drugs in the ompicillin closs ond its use should be confined to these indicotions:* Treotment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis coused by Group A beto-hemalytic streptacacci

Bronchitis ond pneumonio coused by S. pneumonioe (formerly *D. pneumonioe*)

Otitis medio coused by *S. pneumonioe* (formerly *D. pneumonioe*) ond *H. influenzae*

Acute exocerbotion of chronic branchitis coused by *H. influenzoe**

*Though clinical impravement hos been shown, bacterialagic cures connot be expected in all patients with chronic respiratory diseose due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentory) infections caused by Group A beto-hemolytic streptacacci and staphylacacci, nonpenicillinase praducers.

URINARY TRACT INFECTIONS caused by *E. coli* and P. *mirabilis*. (This drug should nat be used in ony *E. cali* and P. *mirobilis* infections ather thon urinory tract.)

NOTE: Perform cultures and susceptibility tests initially and during treotment ta monitar effectiveness of therapy and susceptibility af bocteria. Therapy moy be instituted priar to results af sensitivity testing.

**Contraindications** Cantraindicoted in individuols with history af an allergic reaction ta penicillins.

**Warnings Cyclacillin should only be prescribed for the indications listed herein.**

**Cyclocillin hos less *in vitro* octivity than other drugs of the ompicillin class. Hovwever, clinicol triols demonstroted it is efficocious for recommended indications.**

**Serious ond occosionol fotol hypersensitivity (anaphylactoid) reactions have been reported in potients on penicillin. Although onophyloxis is more frequent following porenterol use, it hos occurred in potients on oral penicillins. These reactions ore more apt to occur in individuols with history of sensitivity to multiple allergens. There are reports of potients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with o cephalosporin. Before penicillin theropy, corefully inquire about previous hypersensitivity reactions to penicillins, cepholosporins ond other allergens. If allergic reaction occurs, discontinue drug ond initiote oppropriote theropy. Serious anaphylactoid reactions require immediote emergency treotment with epinephrine. Oxygen, I.V. steroids, oirwoy monogement, including intubotion, should also be administered os indicoted.**

**Precautions** Pralanged use af antibiotics may pramote avergrowth of nonsusceptible argonisms. If superinfection accurs, take apprapriote meosures.

PREGNANCY: Pregnancy Categary B. Repraductian studies perfarmed in mice and rats at doses up ta 10 times the human dose revealed na evidence af impaired fertility ar harm ta the fetus due ta cyclacillin. There ore, hawever, na adequate and well-cantralled studies in pregnant wamen. Because animol repraductian studies are nat olways predictive af human respanse, use this drug during pregnancy anly if cleorly needed.

NURSING MOTHERS: It is nat known whether this drug is excreted in human milk. Becouse mony drugs are, exercise cautian when cyclacillin is given ta a nursing wamon.

**Adverse Reactions** Oral cyclacillin is generally well talerated. As with ather penicillins, untaward sensitivity reactians are likely, particularly in thase wha previously demanstrated penicillin hypersensitivity ar with histary af allergy, asthma, hay fever, ar urticario. Adverse reactians reparted with cyclacillin: diarrhea (in approximately 1 aut af 20 potients treated), nauseo and vamiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isalated instances af headache, dizziness, abdaminal pain, voginitis, and urticoria have been reparted. (See WARNINGS) Other less frequent adverse reactians which may accur and ore reparted with ather penicillins are anemia, thrambacytopenia, thrambacytapenic purpura, leukapenia, neutrapenia and easinaphilia. These reactians are usually reversible an discantinuatian af therapy.

As with ather semisynthetic penicillins, SGOT elevatians have been reparted.

As with antibiatic therapy generally, cantinue treotment at least 48 ta 72 haurs after patient becames asymptamatic ar until bacterial eradicatian is evidenced. In Group A beta-hemolytic streptacaccal infections, at least 10 days' treatment is recammended ta guard against risk af rheumatic fever ar glamerulanephritis. In chranic urinary tract infectian, frequent bacterialagic and clinical appraisal is necessary during therapy and passibly far several manths after. Persistent infectian moy require treatment far several weeks.

Cyclacillin is nat indicated in children under 2 manths af age.

*Patients with Renal Failure* Cyclacillin moy be safely administered ta patients with reduced renol function. Due ta pralanged serum half-life, patients with variaus degrees af renol impairment may require chonge in dasoge level (see DOSAGE AND ADMINISTRATION in packoge insert).

**Dosoge** (Give in equolly spaced doses)

| INFECTION | ADULTS | CHILDREN* |
|---|---|---|
| *Respiratory Tract* | | |
| Tonsillitis & Pharyngitis | 250 mg q.i.d. | body weight < 20 kg (44 lbs) 125 mg q.i.d.<br>body weight > 20 kg (44 lbs) 250 mg q.i.d. |
| Branchitis and Pneumania | | |
| Mild ar Maderote Infectians | 250 mg q.i.d. | 50 mg/kg/day q.i.d. |
| Chranic Infectians | 500 mg q.i.d. | 100 mg/kg/day q.i.d. |
| *Otitis Media* | 250 mg ta 500 mg q.i.d.† | 50 ta 100 mg/kg/day† |
| *Skin & Skin Structures* | 250 mg ta 500 mg q.i.d.† | 50 ta 100 mg/kg/doy† |
| *Urinary Tract* | 500 mg q.i.d. | 100 mg/kg/day |

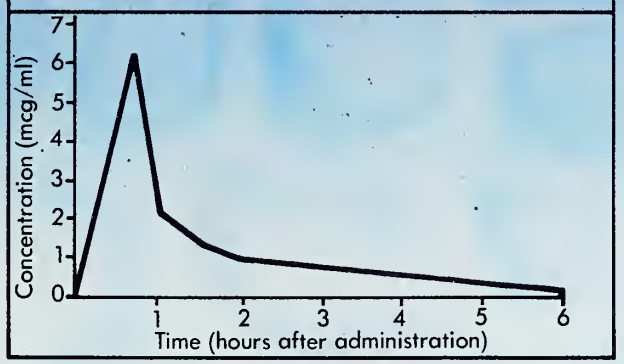
*Dasoge shauld nat result in o dase higher than thot far adults.
†depending an severity

Wyeth Laboratories
Philadelphia, Pa. 19101

# Half the dose is absorbed in 9 minutes!

**compared to 32 minutes for ampicillin.***

**Mean blood levels in mcg/ml after 250 mg cyclacillin single oral dose**




- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on $T^{a}$ ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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**Fewer episodes of diarrhea and rash than with ampicillin in studies to date.**

**Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†**

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

See important information on facing page.

# CYCLAPEN®-W

(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

**more than just spectrum**

NEW NAME

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VIRGINIA MEDICAL
EDITORIAL

# "Words, Words, Words"[1]

*Our patient, tolerant, kindly, scholarly, slow-to-anger continuing medical education director, Dr. Kinloch Nelson, has finally reached the end of his forbearance. Binding together an evil, awesome, fearsome mix of words misspelled, misused, badly used, inappropriately used and replete with clichés, aphorisms, saws and adages, he put words, words, words down for all to see. And here they are.*

On balance at this point in time, none deny that an important criteria of clear thinking is the proper use of words. The data clearly shows this. We do not know to whom to contribute the curious usages that lay before us every day. One media telecast about this recently but the remarks were largely irrevelant.

People do not understand the affects of their errors, nor is there any good way to appraise them of such errors. They are not complemented if you call them to their attention.

We should adapt some educational method early in the system, possibly a symposia, because incorrect word usage is a milestone around a person's neck. The principle thing wrong, or nucelus of the problem, seems to be mental inertia. There is no point in proscribing a remedy if the perspective learner is inert. Somehow we need to elevate his mode. Hopefully, everyone would be supportive of this.

For any worthwile suggestion as to ways to overcome this phenomena, we may be able to get some renumeration in this fisical year. The last plan we had was a failure. Like some one causally said, "We thought it would work real good but it didn't".

KINLOCH NELSON, MD

1. Hamlet, Act II, Scene ii, 1.194

# "Great Expectations"

We begin this year with great expectations—a new administration and a new senate majority promise many changes in Washington. The conservative trend points to a wonderful opportunity to improve medical care for our patients, but it will continue to take a lot of work on the part of all of us.

Most of us believe that the free choice of medical care has been the reason that the American public has had the best health care system in the world. It is my judgment that the Richmond Academy of Medicine must help to improve and preserve this system

Excerpted from Dr. Caravati's presidential address before the Richmond Academy of Medicine on January 13 in Richmond.

and help our patients by becoming even more active with cost containment efforts.

Since 1950 medical care has risen from 4.5% to 9% of the gross national product and for many years had been the fastest rising segment of the consumer price index. This unfortunate position has now been surpassed by both energy and housing as well as both federal income and Social Security taxes. Surveys show that 65% of the public believe that the major problem with medical care is cost. Physicians have recently joined in this belief, and cost has surpassed government intervention in their opinion as the major problem.

There are many reasons for the rise in costs, and we may be able to have influence on some of them. Physicians need to be aware of what expenses they initiate for their patients. It is important for us to become involved in how our patients may do things for less money and yet receive the same quality of care. It may be helpful to know where and how medications may be bought most reasonably. Physicians must work with hospitals and try to make them more cost-efficient and cost-conscious. We must learn the best ways to order laboratory tests and have procedures done at the lowest possible cost. These are only a few obvious approaches. They must be accomplished without reducing quality of care.

Some factors are less obvious and more complicated. For instance, since 1951 this nation has made an effort to increase the supply of physicians, and it is now estimated that by 1990 there will be 70,000 "surplus" physicians, which the noted economist Eli Ginzberg, adviser to seven presidents, says contributes to the cost problem because it leads to too many visits and over-treatment as well as too many procedures. Other recent studies have shown that young physicians (and there are more of these, with the large increase in output by medical schools) tend to have patients return more frequently and to order more procedures than do older physicians. We may be able to influence these causes.

Another factor is the cost of regulation. A few years ago New York state found that hospitals were ruled by no fewer than 164 regulatory agencies, including 40 at the federal level. The cost inflicted by these agencies amounted to 25% of the total hospital budgets or a statewide average of $38.66 per day. Hopefully, this part of the rise can be stopped by the conservative trend.

Some progress has been made in voluntary efforts to control the problem of escalating costs. On the local level, we have been working with hospital administrators and have printed cost-containment brochures to educate our patients as to ways in which they may reduce their own expenses. In Birmingham, Alabama, physicians and businessmen united to form a commission to study this problem. Among their considerations were the following: no hospital admissions on Friday and Saturday except for emergencies; an increase in the use of preadmission testing; greater use of outpatient surgical facilities; and elimination of all hospital admissions unless medically necessary. The physicians supported many suggestions in principle, including decreased inpatient hospital utilization, and recommended a reduction in medical class size as well as inclusion of medical economics in medical school and residency curriculae.

I realize that some physicians feel that we should stick to medical matters and not meddle in financial affairs, but I feel it is essential to meddle because our patients are the main ones who will benefit.

Another area where continued effort is needed is public relations. We have a good start from work done in the last few years—most recently under the committee headed by our new president elect, Duncan Owen, who has been working to come up with new approaches. While progress is notable, it is obvious that we need even more effort and as much improvement as possible in this area. In recent years physicians have tended to be less involved in community affairs than previously. This trend needs to be reversed. We need to do a better job of supporting and taking part in community projects and efforts.

Of course, the best job is the way we handle our patients. Good medical care coupled with concern for the individual is the most important key, and there are many things that individual physicians can do. For example, people simply do not like to be kept waiting in physicians offices for long periods of time. Obviously, emergencies can destroy a schedule, but much waiting in physicians offices is due to poor scheduling and other avoidable causes. Such delays are certainly one of the worst public relations problems of our profession. Our patients also need to know that we do care about the cost they experience. It is easy to let people know that we care if we just make the effort.

Public relations and cost containment are only a couple of fields to which we need to increase our attention, but I feel that they are probably the most important at this time.

In closing, I urge each of you to participate not only in your local and state medical societies but also in the American Medical Association. Your input is essential all the way up the line, and maximum participation is the best way to determine and accomplish our goals.

CHARLES M. CARAVATI, JR., MD

# VIRGINIA MEDICAL OBITUARY

## Memoir of P. Frederick, Jr. 1929-1980

*By Alton R. Sharpe, Jr., MD, Laurie E. Rennie, MD, and Edwin L. Kendig, Jr., MD*

Dr. Philip Frederick, Jr., died on Sunday, June 1, 1980, while playing tennis. He was 50.

Doctor Frederick, a native of Atlanta, Georgia, grew up in Richmond. He was graduated from the University of Richmond in 1950 and earned his medical degree at the Medical College of Virginia in 1954. He served as a fellow in Gastroenterology at the Ochsner Clinic in New Orleans for two years and was in the Navy from 1956 to 1958.

Doctor Frederick opened his office for the practice of internal medicine after returning to Richmond from the service. In 1963 he joined Richmond Gastroenterology Associates, Inc.

He was a diplomate of the American Board of Internal Medicine, a fellow of the American College of Physicians and a member of local, state and national medical organizations.

He was a member of Phi Beta Kappa and Omicron Delta Kappa while at the University of Richmond and was a member of Alpha Omega Alpha Honorary medical scholarship fraternity.

He was also a member at River Road Baptist Church, Sons of the Revolution in Virginia, Sons of the American Revolution and the Country Club of Virginia.

Unbeknownst to many of his colleagues, Philip Frederick had diabetes as a young boy and six months before his untimely death, developed coronary artery disease. He fully recognized the seriousness of his problem but was determined to live as he always had, a full life of quality and competition. Thus, death for Phil Frederick became a stimulus that drove him to continue to achieve the highest professional and personal goals. Despite his vigorous drive to achieve, he was a valued colleague with a good listening ear for personal and professional problems. He was always ready with good advice to friends and patients alike.

To have had the privilege and pleasure of knowing Philip Frederick was truly one rare and unusual experience. He will be deeply missed by his friends, colleagues and patients.

He is survived by his wife, Mrs. Ann Peery Frederick; two daughters; one son; his parents, Philip Frederick, Sr., and Mrs. Mary Arnold Frederick; and a brother, Dr. Louis A. Frederick.

Prepared and published at the request of the Richmond Academy of Medicine.

## Memoir of W. C. Langdon 1939-1980

*By George R. Jones MD, Edward D. Martirosian, MD, and R. Wallace Baxter, MD*

Dr. William Cleveland Langdon died on June 24, 1980, at his home in Richmond after being ill for six months. He was 40 years of age. His wife, Ruth Ann; three daughters, Annah, Candace and Lea; and one son, George, survive.

Dr. Langdon was born September 30, 1939, in Harnett County, North Carolina. He was reared on a farm, of which he was very proud. Bill often said, "I'm just a country boy". He loved growing things, especially flowers—roses and irises. He received his BS in science education at the University of North Carolina in Chapel Hill in 1961 and his medical degree from the same university in 1965. He served his internship in medicine and his residency in obstetrics and gynecology at the Medical College of Virginia from 1965 to 1969. He then entered the United States Air Force as a captain, serving three years and being discharged as a major in 1972. He and his family moved to Richmond where he practiced obstetrics and gynecology. Bill was a member of the American College of Obstetrics and Gynecology, Southern Medical Association, American Fertility Society, The Medical Society of Virginia, Richmond Academy of Medicine and Richmond Obstetrical and Gynecological Society.

Dr. Langdon faced his illness with courage, knowing the ultimate outcome. He continued to lead as normal a life as possible and with confidence prepared for his wife and children. He was a man of principle and dedication, who left an indelible mark on those who worked with him. He was unselfish, never asking more for himself and always willing to take on the unwanted tasks of running a medical

practice. He did what he could to serve his fellow man, his patients and his profession, without any idea of honors; but the love and devotion he received from his friends, patients and partners is an honor well earned and one of which any physician would be proud. He had the interests of the patient and the responsibility of the physician deeply implanted in his heart. He did so much good for the short time he was with us.

During the last months of Bill's life he taught those of us close to him the way to meet the crises of death, but above all, during our entire association, Bill taught us the way to live.

Prepared and published at the request of the Richmond Academy of Medicine.

# Memoir of Daniel Leavitt 1919-1980

*By Anthony Cuzzocrea, MD*

Daniel Leavitt, MD, a member of the medical staff of Community Hospital of Roanoke Valley, died May 21, 1980, at the age of 61 years. Dr. Leavitt was chief of pathology at the Jefferson and the Community Hospitals from 1951 to 1980. He was associate clinical professor at the University of Virginia in Charlottesville and also served as a senior research associate at Hollins College, Hollins, Virginia.

Dr. Leavitt was born in Babylon, New York, and received his MD degree in 1941 from the New York University College of Medicine and was a member of Alpha Omega Alpha honorary society. His residency in pathology was completed at the Duval Medical Center, in Jacksonville, Florida, after having served in the United States Coast Guard, with the United States Public Health Service, from 1942-1945.

He was a member of the International Academy of Pathology, the Virginia Society of Pathology, The Medical Society of Virginia and the Roanoke Academy of Medicine, as well as numerous other medical societies, both national and local. He served as president of the Virginia Society of Pathology and was a fellow of the American Society of Pathology.

Dr. Leavitt is survived by his wife, Evelyn, and two children, James and Laura Ann.

The above is an official statement of some of Dr. Dan Leavitt's achievements, but the words do not express the man we knew in our community for almost 30 years. His devotion to his wife and children was so strong that even outside observers could feel the special relationship that existed. He carried this kind of devotion to mankind, to his community, to his peers, students, workers, to foreign residents and newcomers, sharing his knowledge, his energies, his home and, above all, his wit.

He will be missed by all.

Prepared and published at the request of the Roanoke Academy of Medicine.

# George S. Fultz, Jr., MD

Dr. George S. Fultz, Jr., psychiatrist and retired vice president of the Tucker Psychiatric Clinic at Chippenham Hospital, Richmond, died March 30 in a Richmond hospital. He was 67 years old.

A Dinwiddie County native, Doctor Fultz earned a bachelor's degree from Virginia Military Institute in 1934 and a medical degree from the Medical College of Virginia in 1938. His internships were served in Richmond at Johnston-Willis Hospital and at Tucker Clinic, then Tucker Hospital, and he was a fellow in neurology at George Washington University Hospital in Washington. He also was a resident in neuropsychiatry at the Medical College of Virginia.

During World War II Dr. Fultz was chief neuropsychiatrist at the 220th Station Hospital in the Pacific theater and was discharged from the Army as a major. From 1946 to 1976 he was in private practice as a psychiatrist; the vice presidency of Tucker Clinic he held from 1976 until his retirement last November.

In addition to serving as a consultant in psychiatry to many Richmond hospitals, Dr. Fultz served on the clinical faculty of the Medical College of Virginia, the board of directors of the Memorial Guidance Clinic, and the consulting staff of Fort Lee Army Hospital. He had been president of the Neuropsychiatric Society of Virginia; chairman of the section on neurology and psychiatry of the Southern Medical Association; and a member of both the executive committee of the Mental Hygiene Society of Virginia and the Governors Advisory Board on Mental Health.

His other memberships included the American Psychiatric Association, Richmond Academy of Medicine, American Medical Association, Tri-State Medical Association, the Medical College of Virginia Alumni Association and Manchester Medical Society. His membership in The Medical Society of Virginia spanned 35 years.

# VIRGINIA MEDICAL CLASSIFIED

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**FOR SALE—ENT equipment, including Beltone audiometer 14C, also B&L slit lamp with applanation tonometer. Call (703) 886-6595 day or night.**

**SITUATION WANTED—Semi-retired physician, certified in obstetrics and gynecology, desires clinical or hospital position in family planning or allied field. Virginia license. Call (313) 675-3088 any time. J. A. Cook, MD, 3901 Fort, Trenton MI 48183.**

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the Virginia doctors' classified.

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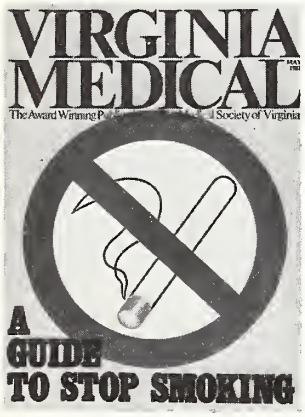
# LETTERS

## Readers Respond to May Issue's Articles on Smoking Cessation

*The Editors were delighted to receive so many communications expressing approval of the May issue's stand on smoking cessation. Indeed, the received reaction was entirely affirmative, from Medical Society of Virginia members, as the gracious letters below attest,*




*and from lay citizens of Virginia, many of whom have called or written to ask for reprints of the Stop Smoking Guide. There have been queries about the Guide also from organizations near and far—as far, for instance, as the Medical Society of Pierce County in Tacoma, Washington. These communications suggest that the Guide, which is believed to be the first of its kind, may generate similar efforts in other areas of the nation.*

*The issue attracted considerable media attention, national as well as local. Both* American Medical News *and* Medical World News *carried stories about it and reproduced the cover as shown above.*

*Although many physicians have ordered the offered reprints of the Stop Smoking Guide, there are still some available. They are handsome reprints, on quality stock with the bright red and yellow cover of the May issue, and they are free of charge to MSV members. Send your order to Virginia Medical's Stop Smoking Guide, 4205 Dover Road, Richmond VA 23221.*

*—The Editors*

I read the article on smoking in the May issue, and I thought it was well-done, tastefully written and straight to the point.

I congratulate both you and the journal on the cover, which in this environment takes a bit of courage.

**Robert C. Green, Jr., MD**

230 West Boscawen Street
Winchester VA 22601

Thank you for the May 1981 issue of VIRGINIA MEDICAL, which included the "Guide to Stop Smoking." The fine articles by John J. Witte[1] and Ann Gray[2] should well serve the physician community in Virginia. The health consequences of cigarette smoking have been very difficult for many Virginians to acknowledge, and I commend the editors for taking this initiative.

**Joseph M. Deignan, MD**

116 South Stewart Street
Winchester VA 22601

1. Witte JJ: Cigarette smoking in youth: prevention is the key. Va Med 108:319-321, 1981
2. Gray A: Guide to stop smoking. Va Med 108:313-317, 1981

I want to extend my congratulations on the May issue of VIRGINIA MEDICAL, particularly on the excellent lead-off article, "Guide to Stop Smoking." This needed to be said and it was presented so well.

Keep up the good work!

**Alexander McCausland, MD**

609 South Jefferson Street
Roanoke VA 24011

The local paper carried a story about publication of the "Guide to Stop Smoking" in VIRGINIA MEDICAL, so I eagerly awaited the May issue and read the article with interest.

I would very much like to have the names of institutions, particularly hospitals, that have successfully prohibited smoking and have found some reasonable means of enforcing such a rule.

**Randy Forehand, MD**

2951 West Front Street
Richlands VA 24641

**Editor's Note:** Sent to Dr. Forehand was a copy of the article, "The New England Deaconess Hospital: Nearly Smoke Free," which was published in the autumn 1979 issue of *World Smoking & Health,* an American Cancer Society journal. In it, the author, Nancy Seideman, describes the institution of smoking controls at Deaconess in 1977 and the successful results of the program.

Dr. Forehand was also referred to the 725-bed

Roanoke Memorial Hospital, where in October 1980 the hospital's president, William H. Flannagan, instituted rules that confine smoking to waiting rooms, eating areas and rest rooms, and ban smoking in patient rooms, elevators and stairways. Then, in February 1981, Mr. Flannagan ordered all cigarette vending machines removed from the facility's premises. Members of the hospital's Cancer Committee, who had pressed for the controls, praise Mr. Flannagan highly for taking "a tremendous step."

I have read the article, "Guide to Stop Smoking," in the May issue and think it is a wonderful and helpful article. I was also impressed by Dr. John K. Witte's article, "Cigarette Smoking in Youth: Prevention is the Key."

I can well remember attending medical meetings back in the "old days." The auditoriums were so dense with cigarette smoke that it was hard to see across the room. Now the room is almost clear, with only a pipe or two in the audience.

I have never smoked or become intoxicated from alcohol, and here is the story of how that came about. I was a poor country boy; even a dime looked big to me. I read in the newspaper that the Woman's Prohibition League of America (with Georgia May Jobson of Richmond, Virginia, as president) was holding a contest and would give a $2.50 gold piece to the boy or girl in Virginia who would write the best essay on "The Harmful Effects of Alcohol in the Human Body." I dreamed of how wonderful it would be to own a gold coin! My parents tried to dissuade me from entering the contest, but I read my physiology book, got government literature and anything else I could find about alcohol and finally (and fearfully) sent in an essay. You can imagine how happy I was when I was notified on July 21, 1916, that I had won. That little coin was the prettiest piece of gold I have ever seen.

The next year the same organization offered a $5 check for the best essay on "The Harmful Effects of Smoking Tobacco." Again I gathered all the literature I could, read it carefully and sent in a manuscript. I won again!

Winning those two prizes kept me from using alcohol or tobacco. I heeded the warnings of the dangers I wrote about and got through high school, college and medical school without taking up either habit. The $2.50 gold piece and the check for $5 was money *well spent.*

**F. Clyde Bedsaul, MD**

Box 115, Floyd VA 24091

## Registers Opposition to Mandatory CME

As one of those who completed the survey on mandatory continuing medical education in the state of Virginia and who thoroughly opposes it, I want to comment on some of the statements in your news statement in VIRGINIA MEDICAL of May 1981.[1]

This, of course, is a blurb favoring continuing medical education and pointing out that 65% of the members of The Medical Society of Virginia favored it, particularly in a mandatory form. The problem I have with this is that there are some 14,348 physicians registered as licensed in the state of Virginia, so that there are 8,312 physicians registered in the state who simply did not respond or were not interested in the survey, indicating possibly that the majority of physicians within the state do not care a) about the Society and b) continuing medical education.

I also note that a number of states, and particularly a number of specialty societies, have given up the idea of CME in a compulsory form as not being worth the candle. Though I may be in the minority within the Society itself, I still may well be within the majority of physicians who believe that compulsory continuing medical education is a fraud.

**F. S. Beazlie, Jr., MD**

610 Thimble Shoals Boulevard
Newport News VA 23606

1. News Bureau: In state survey, most members vote for mandatory CME. Va Med 108:284-285, 1981

**Editorial Note:** The "news statement" referred to by Dr. Beazlie was simply a straightforward news report of a survey conducted under the auspices of The Medical Society of Virginia. VIRGINIA MEDICAL's Editor, Dr. W. T. Thompson, Jr., has made no bones about his opposition to mandatory continuing medical education. See, for example, his editorial titled "Voluntary CME, Yes! Mandatory CME, No!" in the April 1977 issue, Volume 104, pages 273-275.

As for the number of physicians who responded to the survey, Dr. Kinloch Nelson, Director of Continuing Medical Education for The Medical Society of Virginia, says that the survey's questionnaire did indeed go out to all physicians in the state—at that time 6,036 MSV members and 5,143 non-members, but the report in the April issue referred only to the responses of MSV members. The responses of non-members are being analyzed and will be reported by Dr. Nelson and cohorts at a later date.

**In a rite of spring,** a contingent of Medical Society of Virginia officers and councilors crossed the Potomac to Capitol Hill one day in mid-May, and these pictures record the invasion. As can be seen, it was a friendly foray, designed not to conquer but to meet peaceably with Virginia's legislators. All of the ten congressmen showed up, but Senator John Warner singlehandedly represented the two Senate seats.

Lunch in the Mike Mansfield Room of the United States Capitol Building was appropriately hearty—the famous Senate bean soup followed by steak and baked potato. Then MSV President Percy Wootton conducted a small symposium to which three of the visiting doctors contributed: Dr. H. C. Alexander, III, President Elect, whose message was "Down with the

▲ **1st District pair: Councilor William Stewart Burton, MD, left, and Rep. Paul S. Trible.**

▲ **9th District team: Rep. William C. Wampler, left, and Dr. Carl E. Stark, who has announced he will seek a Virginia Assembly seat in the fall elections.**

National Health Service Corps, up with the Virginia Council on Health and Medical Care"; Dr. Charles M. Caravati, Jr., Councilor from the 3rd District, who described the coalition of businessmen and physicians initiated by the Richmond Academy of Medicine to tackle health care costs; and Dr. George M. Nipe, Past President, who detailed a program for voluntary health planning at the local level to be spearheaded by doctors, hospitals and industry.

These photographs were made by Tom Fulcher, aide to Representative Frank R. Wolf and son of Dr. Thomas M. Fulcher of Fairfax. A.G.

**◀ MSV Councilor Glenn B. Updike, Jr., MD (center), preceded by his 5th District congressman, Dan Daniel (right), shakes hands with Rep. Thomas J. Bliley, Jr., 3rd District. At extreme left, Dr. Carl E. Stark.**

**▲ 2nd District confab: Councilor Frederick K. McCune, MD, left, and Rep. G. William Whitehurst.**

**▲ 10th District twosome: Rep. Frank R. Wolf, left, and Councilor C. Barrie Cook, MD. In the background, 4th District Councilor Charles H. Crowder, Jr., MD.**

These are the officers of the Virginia State Board of Medicine. Dr. Carroll H. Lippard, Lynchburg, who appears directly left, is the president. In the photograph below left is the vice-president, Dr. Edwin L. Kendig, Jr., Richmond. Pictured below in the Board's office in Richmond is Dr. George J. Carroll, Suffolk, secretary-treasurer.

Dr. Lippard

Dr. Carroll

Dr. Kendig

# An Inside Look at the Virginia State Board of Medicine

Edwin L. Kendig, Jr., MD, *Richmond, Virginia*

THE Board of Medical Examiners of the Commonwealth of Virginia, now the State Board of Medicine, was created in 1884. While the duties of the Board today include those in effect in 1884, many more have been added; there has been also some change in direction.

The Board now consists of fourteen members, including one MD for each congressional district, an osteopathic physician, a chiropractor, a podiatrist and a clinical psychologist. Dr. Carroll H. Lippard is the present president of the Board, and the secretary-treasurer is Dr. George J. Carroll.

The Board members are appointed by the Governor of Virginia to a five-year term and are eligible for reappointment for a second five years. The only exception is the secretary-treasurer, who may be reappointed for an unlimited number of terms. With appointment to the Board, each member accepts a time commitment of approximately 30 days during each year of service.

The State Board regulates the practice of medicine in Virginia. This regulation entails not only the setting of standards for licensure by examination and reciprocation with other states, but also the maintenance of a high level of health care for the people of Virginia. This latter responsibility is a grave one and means that the Board must make every effort to ensure that all licensed practitioners continue to function at an acceptable level of competence.

Among the major problems encountered are 1) the physician who is incompetent because of age, alcoholism, drug addiction or other illness; 2) the physician with careless prescribing habits; and 3) the physician who knowingly provides addicts with desired narcotics.

Information in regard to the impaired physician may reach the Board as a result of the mandatory reporting law. Some problem cases are uncovered because of complaints registered by patients. The

Address correspondence to Dr. Kendig at 5801 Bremo Road, Richmond VA 23226.

**MEMBERS OF THE VIRGINIA STATE BOARD OF MEDICINE**

Medicine and Surgery
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George J. Carroll, MD, *Suffolk*
Arthur B. Gravatt, MD, *Kilmarnock*
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Carroll H. Lippard, MD, *Lynchburg*
Thomas F. McGough, MD, *Alexandria*
Edwin T. McNamee, Jr., MD, *Stuart*
Eugene O. S. Stevenson, MD, *Fairfax*
C. Newton Van Horn, MD, *Norfolk*

Osteopathy and Surgery
Harold A. Blood, DO, *Alexandria*

Clinical Psychology
Burke M. Smith, PhD, *Charlottesville*

Podiatry
Abraham A. Coster, DPM, *Alexandria*

Chiropractic
James W. Walker, DC, *Charlottesville*

Health Regulatory Board, through its monitoring system, provides most of the information in regard to prescribing irregularities. The Commissioner of Insurance and the Office of Consumer Affairs also report.

Many complaints reach the Board. Some are unfounded or so minor in nature that the alleged problem can be solved by a letter or telephone call. If, however, the allegation appears to have any basis in fact, the reported physician is provided an informal conference with three designated members of the Board.

This conference may reach any one of several conclusions: 1) the accused may be absolved of any wrong-doing; 2) he/she may be censured or reprimanded; 3) and 4) the license of the accused may be put on probation or suspended; or 5) a formal conference may be requested by the Board members. If the accused is not satisfied with the verdict, he/she may request a formal hearing.

In performance of its duties, the Board sometimes encounters an issue on which the membership of The Medical Society of Virginia has divided opinions. An example of this is the listing of the names of impaired physicians in *Board Briefs*, the newsletter sent by the Board to physicians and hospitals all over Virginia. This listing was modified recently to this effect: names of MDs on suspension/probation will be published only once, unless otherwise directed by the affected physician. For example, if the license of John Doe is suspended, this action will be reported in *Board Briefs*. However, when John Doe's license is restored to probationary status, *Board Briefs* will not report this change *unless* John Doe so requests. Also, if the license of a particular physician is suspended because of organic illness, such will be so stated.

An effective member of the Virginia State Board of Medicine must make a commitment to excellence, realizing that the responsibility is awesome and that the time commitment is great.

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Applications are now being accepted for office space. Interested physicians should call project manager Ray Hayes at (804) 359-1843.

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# WHO'S WHO

**Plans** are underway for the 134th Annual Meeting of The Medical Society of Virginia, and in the photograph above are gathered those who are doing the planning. All are from Norfolk, site of the 1981 meeting, and represent the Norfolk Academy of Medicine and its Auxiliary. From the left: Dr. Russell D. Evett, chairman of the Arrangements Committee; Dr. Robert M. Kesler, president of the Norfolk Academy; Dr. James P. Baker, in charge of exhibits; Mrs. Donald E. Sly, chairman of the Auxiliary's program; Dr. John C. Schaefer, who will work up the tennis tournament; Dr. Harry B. Taylor, Jr., the Academy's president elect, who will have taken office as president by the time the meeting occurs; and Dr. Harold M. Horden, whose assignment is the entertainment for the Saturday night banquet. Appointed to head up the golf tournament was Dr. William V. Tynes, II, who was not on hand for this photograph. Dates of the meeting: October 20 to 25, one day longer than of the past. Place: the Omni Hotel on the waterfront in Norfolk, setting for the photograph above. Your program will be bound into the October issue, and on page 000 of this issue you will find directions for making your hotel reservations.

# MEETINGS ABOUT MEDICINE

**August 10-11**
**Antibiotic Review—1981** (National Conference on Antibiotic Review), *Washington, DC.* Sandy McMillan, 67 Peachtree Park Dr., Suite 221-D, Atlanta GA 30309.

**August 12-15**
**5th Annual Summer Retreat at Virginia Beach: "Practical Issues in Primary Care"** (Medical College of Virginia), Sheraton Beach Inn, *Virginia Beach.* 17½ hours Cat. I credit. Tuition, $195. Mrs. Glenda L. Snow, Box 48, MCV Station, Richmond VA 23298, (804) 786-0494.

**August 15**
**Stress in Medical Practice** (East Tennessee State University), *Johnson City, Tennessee.* 6 hrs. Cat. 1 credit. Fee: $50. Shirley Bogart, (615) 928-6426, ext. 204.

**August 20-22**
**Eastern Virginia Medical School Summer Conference at the Beach,** *Virginia Beach.* James P. Baker, Jr., MD, (804) 628-3584.

**August 29-31**
**Tutorials in the Tetons—Cardiac Emergencies—New Diagnostic and Therapeutic Advances** (University of Nebraska), Jackson Lake Lodge, *Wyoming.* Registrar, American College of Cardiology, 9111 Old Georgetown Rd., Bethesda MD 20014.

**September 3-5**
**Anesthesiology Symposium** (Eastern Virginia Medical School), *Portsmouth.* Mrs. Murphy, (804) 398-5125.

**September 9-11**
**Cardiology Board Review Program Update in Cardiology** (American College of Cardiology), *Atlanta, Georgia.* Cat. 1 credit. American College of Cardiology, 9111 Old Georgetown Rd., Bethesda MD 20014.

**September 11**
**Community Health—An Inter-Professional Course and Workshop** (University of Maryland), Baltimore. Betty B. Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**September 12**
**Second Saturday Symposium—Neurology** (Eastern Virginia Medical School), *Norfolk.* Robert L. Cassidy, MD, PO Box 1980, Norfolk VA 23501, (804) 446-5268.

**September 12-13**
**Diagnostic Ultrasound in Ob/Gyn** (Johns Hopkins University), *Baltimore.* Cat. 1 credit. Fee: $400. Joan Batt, Dept. of Radiology, Johns Hopkins Hospital, Baltimore MD 21205, (301) 955-8450.

**September 16**
**Pediatric Nephrology—Urology: A Clinical Approach to Common Problems** (Children's Hospital National Medical Center), *Washington, DC.* 7 Cat. 1 credits. Susan Weiss, Convention Center CHNMC, 111 Michigan Ave., NW, Washington, DC 20010, (202) 745-3000.

**September 17-19**
**Breast Cancer: Current Concepts and Diagnosis, Treatment, and Rehabilitation** (Eastern Virginia Medical School), *Norfolk.* G. Patrick Maxwell, (804) 623-1090.

**September 18-19**
**Behavioral Aspects of Adolescent Health Care** (University of Maryland), *Baltimore.* Betty B. Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**September 18-19**
**Selected Topics in Pediatrics** (Eastern Virginia Medical School, Children's Hospital of the Kings Daughters), *Norfolk.* 8 Cat. 1 credits. Fee: $30. Jean E. Shelton, MD, 800 W. Olney Rd., Norfolk VA 23507, (804) 628-3798.

**September 18-20**
**American Medical Association Continuing Medical Education Course—Various Topics** (AMA), *Philadelphia, Pennsylvania.* 6 Cat. 1 credits. Fee: members, $65; nonmembers, $95. G. K. Jewett, 535 N. Dearborn St., Chicago IL 60610, (312) 751-6000.

**September 19**
**Advances in Laboratory Medicine** (East Tennessee State University, Ames Laboratories), *Johnson City, Tennessee.* 7 Cat. 1 credits. Fee: $50. Shirley Bogart, Continuing Medical Education, (615) 928-6426, ext. 204.

**September 21-22**
**Oral Complications of Cancer Chemotherapy** (University

of Maryland), *Baltimore.* Betty B. Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**September 21-24**
**1981 Scientific Assembly** (American Academy of Family Physicians), Las Vegas, Nevada. Hour-for-hour Cat. 1 credit. American Academy of Family Practice, 1740 W. 92nd St., Kansas City MO 64114, 1-800-821-2512.

**September 21-25**
**Basic Practicum in UltraSound** (Johns Hopkins University), *Baltimore.* Cat. 1 credit. Fee: $400. Betty B. Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**September 24-25**
**Fourth Annual Conference on Aging and Health** (Virginia Medical Center in Salem, University of Virginia), *Salem.* 10 Cat. 1 credits. Frank Brochu, MD, Virginia Medical Center, Salem VA 24153, (703) 982-2463.

**September 24-26**
**Sixth Annual Symposium on Advances in Cancer Treatment Research** (University of Maryland), *Baltimore.* Betty B. Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**October 17**
**3rd Annual Behavioral Medicine Conference:** Primary and Secondary Risk Induction of Coronary Artery Disease (University of Virginia), *Charlottesville.* Cat. 1 credit. Department of CME, University of Virginia, Box 368, Charlottesville VA 22908, (804) 924-5318.

### A CURE FOR CONFLICTS

To prevent the conflicts in meetings dates that occur now and then, the Medical Society of Virginia Continuing Education Office is a referral point for those who are scheduling meetings.

Toward this worthy goal, would you please notify the CME office by phone or letter as soon as your meeting date is settled. Do not wait for formulation of program plans and such; this register will refer only to the *dates* of meetings.

The address of the CME office is 4205 Dover Road, Richmond VA 23221. The phone number: (804) 353-2721. Dr. Kinloch Nelson is CME director for The Medical Society of Virginia, but the register is kept by Mrs. Evelyn Stockmar; ask for her when you call.


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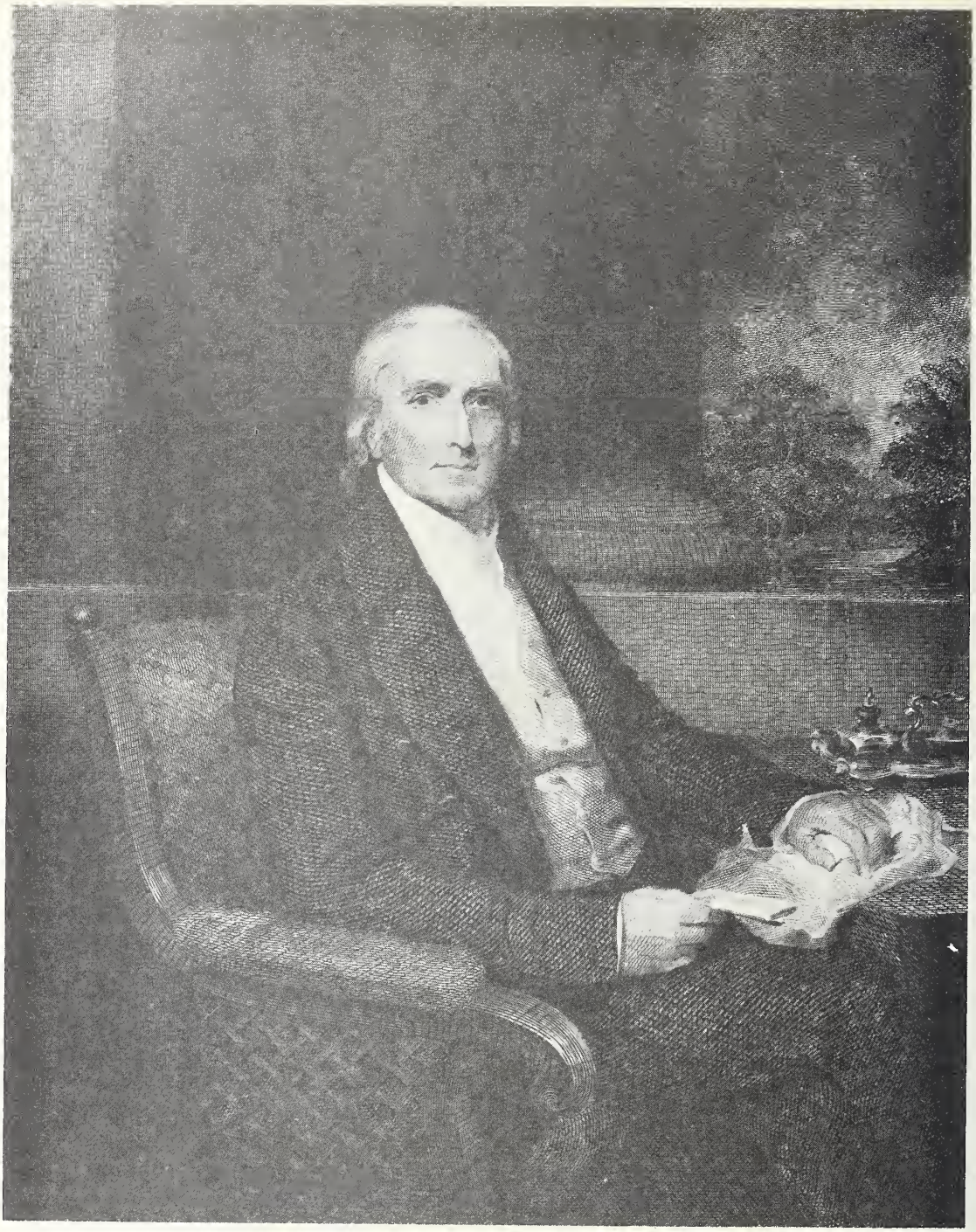

**PHILIP SYNG PHYSICK, MD**

Engraved by R. W. Dodson from the original picture by H. Inman painted for the Medical Class of the University of Pennsylvania. *Reproduced by permission, Philadelphia Museum of Art, SmithKline Corporation Collection.*

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# Philip Syng Physick, Father of American Surgery

E. Randolph Trice, MD, *Richmond, Virginia*

"In the operating room his dexterity and precision were remarkable, and as a lithotomist he was probably without equal. An innovative surgeon, he originated operations for the correction of harelip and for artificial anus; developed wire snares for both tonsillectomy and hemorrhoidectomy; pioneered in partial iridectomy; invented appliances to treat coxalgia and to correct foot displacement in Pott's fracture; and introduced the first absorbable sutures."

*The inkwell used at the signing of the Declaration of Independence and still on view in Independence Hall, was made by the distinguished Philadelphia silversmith, Philip Syng, Jr., whose grandson was the equally famous American surgeon, Philip Syng Physick.*

*And flanking the speaker's podium in the auditorium of the Richmond Academy of Medicine are two fine oil portraits, one of Dr. Walter Reed, called the Father of American Experimental Medicine, the other, thought to be by Thomas Sully, of Philip Syng Physick, known as the Father of American Surgery.*

PHILIP Syng Physick (the name is a corruption of Fishwick) was born July 7, 1768, in Philadelphia of English parents. His father, Edmund Physick, was a business agent for the Penn family and lived in a small house called "The Hat" on a portion of the Penn plantation, "Lansdowne," in what is now Fairmount Park. Young Philip attended the Friends' Academy, where he was described as a punctual and industrious, if not popular, student. He possessed excellent manual dexterity and initially wanted to be a silversmith like his grandfather. His father, however, had determined that he was to be a doctor. At the University of Pennsylvania, where Philip earned his Bachelor of Arts degree in 1785, he demonstrated a fondness for, and a facility in, the classics.

Mr. Physick next took young Philip to Dr. Adam Kuhn, a well-known physician in Philadelphia at the time, for a preceptorship in medicine. The young student is said to have committed to memory several medical texts at this time. In 1789 Mr. Physick took Philip, then 20 years old, to London to become a private pupil of the renowned surgeon, John Hunter. The next year he spent as house surgeon at St. George's Hospital, London; this was a singular accomplishment for an American so soon after the Revolutionary War. The appointment was undoubtedly secured for Physick by John Hunter and in-

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Address correspondence to the author at the McGuire Clinic, 7702 Parham Road, Richmond VA 23229.

dicates Hunter's respect for his student. A year later Physick earned his diploma from the Royal College of Surgeons. Following this, he served for a short time, as assistant to John Hunter until, in May 1791, he went to Edinburgh. A year later he had his degree in medicine. His thesis was titled "De Apoplexia". In Edinburgh his peculiar name resulted in some teasing and one of his fellow students produced the following verse:

*Sing Physic, Sing Physic, for Philip Syng Physick*
*Is dubbed Doctor Phil for his wonderful skill;*
*Each sick phiz he'll physic, he'll cure every phthisic*
*Their lips fill with Physic, with potion and pill.*

He returned in 1792 to Philadelphia, where the first few years of his practice were discouraging, for few patients sought his services. Then, in 1793, Philadelphia endured a terrible epidemic of yellow fever, and Physick was able to secure a position at the yellow fever hospital on Bush Hill. Medical opinion at that time was divided as to the contagiousness of yellow fever. The respected Dr. Benjamin Rush was convinced that yellow fever was not contagious and that bleeding was the best treatment. Dr. Physick supported Dr. Rush's point of view and subsequently received Dr. Rush's patronage. The next year Dr. Physick was appointed surgeon to the Philadelphia Hospital.

In 1800 Dr. Physick married Elizabeth Emlen. They had four children who reached maturity; one, their oldest daughter, married a medical student, Jacob Randolph, who became a distinguished surgeon.

It was about the time of Physick's marriage that he was appointed surgeon to the Philadelphia Alms House, the oldest hospital in America. In 1802 he became a member of the renowned American Philosophic Society, and in 1805 he was appointed to the newly established Chair of Surgery at the University of Pennsylvania. Prior to this, surgery lectures had been given as part of the course in anatomy; the Chair of Surgery was created specifically for Dr. Physick. In 1819 he took the Chair of Anatomy at the same institution.

His reputation spread to Europe, and in 1825 he was made a member of the Royal Academy of Medicine in France and several years later an honorary fellow of the Royal Medical and Surgical Society of London.

Dr. Physick was a shy and sensitive man throughout his life. He never laughed and rarely smiled and was considered cold and unsociable. He wrote out each surgical lecture and committed it to memory. This practice resulted in a monotonous delivery punctuated only occasionally by a short, ad lib case report. "At the close of his lectures in anatomy" a student recalled, "he often expressed his views on the surgical disease of the parts in the demonstration of which he had been engaged and then he was eloquent." His fees were modest. He had inherited a small legacy and had made wise investments, which guaranteed his financial independence. He never changed clergymen or officers of the Army or Navy. His most famous patient, John Marshall, never received a bill.

In appearance Dr. Physick was erect and of medium height. His face was strikingly handsome but pallid, since he avoided fresh air, and is said to have looked as if it were chiseled out of marble. His hair was powdered and worn in a queue long after the style was out of fashion. In dress he wore a dark blue coat and light gray pantaloons so consistently as to be a uniform. His health was never very good. He had smallpox in his youth and suffered some sort of catarrhal infection during his year at St. George's, London. He had yellow fever twice, once in 1793 and then again in 1797. In 1813 he developed a severe enteric infection called "typhus" at the time; it was probably typhoid fever. He never fully regained his strength after this illness and had frequent digestive problems for the remainder of his life.

In an article for the Richmond Academy of Medicine's *Bulletin* in 1938, Dr. M. Pierce Rucker wrote that Dr. Physick's forte was conservative surgery. In the operating room his dexterity and precision were remarkable, and as a lithotomist, he was probably without equal. An innovative surgeon, he developed a wire snare and a guillotine device for tonsillectomy, and an operation for the correction of harelip. He removed cataracts and pioneered in partial iridectomy. He was the first to describe diverticulum of the rectum, and he originated an operation for artificial anus. He developed a double snare for the treatment of hemorrhoids. He made numerous contributions to orthopedic surgery and employed a woodcarver named William Rush to make orthopedic appliances. He originated an appliance for the treatment of coxalgia, modified DeSault's splint for fractured thigh and developd an appliance to correct outward displacement of the foot in Pott's fracture.

Dr. Physick had learned of the discovery and use of carbonated water by Schweppe in England. In 1807, working with Mr. Townsend Speakman, he tried carbonated water in the treatment of various diseases. He finally concluded that it had no medicinal purpose. Speakman, in the meantime, added fruit juice to the carbonated water and originated the soft drink business in this country.

In 1812 Physick improvised an apparatus for removing the contents of the stomach with a pewter syringe and a flexible tube. When the stomach pump syringe was invented by Alexander Munro, II, in Edinburgh, Physick was the first in this country to use it. With it he is said to have saved the lives of two boys who swallowed large doses of laudunum.

Dr. Physick experimented with various animal tissues and in 1816 introduced the first absorbable sutures (catgut). He developed a forceps for securing deep blood vessels and developed an adhesive to treat cracked nipples.

In 1820 he introduced a method of treating fractures that failed to unite; it was a remarkable improvement, for previously when a bone failed to unite, the patient would be left with what was referred to as a "flail limb"-a useless arm or leg. His method involved introducing a seton, a sort of thick thread or twisted silk or muslin, which acted as a foreign body and caused inflammation of the ends of the bone; a callous was formed by the inflammatory secretion, thus uniting the edges of the fracture.

In the latter part of his life Dr. Physick lived in one of the most beautiful homes in Philadelphia. The original house was built in 1786. It was extensively rebuilt in Federal style by Dr. Physick when he moved into it in 1815. The only free-standing house in the section of Philadelphia known as "Society Hill," it was restored in 1966 and is now open to the public.

In this house took place in 1831 the most famous operation that Dr. Physick was to perform, when he removed hundreds of bladder stones from Chief Justice John Marshall, then in his 76th year. The doctor himself was 63 years old then, and retired. The jurist presented the doctor with a handsome silver wine cooler in appreciation; it can be seen in the Green Room of the Physick house, and the removed stones are on view in the Mütter Museum of the College of Physicians in Philadelphia.

The wine cooler was not the only gift from a noted patient to be seen in the house. In the drawing room there is a romantic painting of Roman ruins presented by a grateful Joseph Bonaparte, the exiled King of Spain, who lived in Philadelphia for a number of years. And a portrait of Dr. Physick by Henry Inman commissioned by appreciative students of Dr. Physick, presides over a lovely mantle of Valley Forge marble in the dining room. Several copies of this portrait are to be found in the Philadelphia area.

Dr. Physick's health declined steadily after his retirement in 1831 until myocardial failure and general anasarca brought death on December 15, 1837. The respect in which he had been held was well expressed

**In Philadelphia, visitors ride in a horse-drawn carriage past the house once owned by Dr. Philip Syng Physick. Built in 1786, the house was acquired by Dr. Physick in 1815.** ***Philadelphia Convention and Visitors Bureau.***

by the Philadelphia diarist, Sidney George Fisher: "Dr. Physick died yesterday. He had been for many years at the head of his profession in this country and ranked as probably the best surgeon in the world."

Strangely enough, out of fear of being buried alive the doctor provided in his will that his funeral be delayed, and stipulated that there be no autopsy. The latter is interesting in view of Dr. Physick's own advocacy of autopsy. He also stipulated that guards be placed at the grave for several weeks after his burial to discourage body snatchers. This fear of body snatchers may be understood if one believes a story told about the doctor Physick by a Dr. Ashburst. On the evening after Dr. Rush had been buried, Ashburst related, Dr. Physick was summoned to his door by a loud ringing of the doorbell. On opening the door he was confronted by a large Negro, who asked abruptly, "Do you want Dr. Rush? I will leave him at the college for you tomorrow morning for twenty dollars."

Dr. Physick was buried in Christ Church Burial Ground just a few feet from the grave of his friend and colleague, Benjamin Rush.

*Bibliography on request.*

# Grand Rounds: Pacemakers in Children

From the Division of Pediatric Cardiology,
Medical College of Virginia/Virginia Commonwealth University.
Discussed by Carolyn M. McCue, MD,
Louise W. Robertson MD, and Sondra Goldstein.

RECENT developments in congenital and acquired complete atrioventricular (AV) block warrant a discussion of the indications of pacemakers in infants and children. Transtelephonic electrocardiography has added a new dimension by permitting the performance of the pacemaker to be monitored by telephone.

It is now estimated that 300,000 Americans, from infants to centenarians, rely on pacemakers. Each year 20,000 to 30,000 patients become new recipients. Long-acting lithium iodide cells for batteries have been in regular use for about three years and have provided pacemakers with a 7-to-12-year life span that obviates many of the technical problems, especially in children, which required frequent hospitalizations in the past.

Address correspondence to Dr. McCue at Box 272, MCV Station, Richmond VA 23298.

Presented May 1980.

**History**

Galvani first recognized that electrical current affects the heart, and as early as 1900, Prevos and Batelli demonstrated that both direct and alternating current discharges could terminate ventricular fibrillation.[1] In 1952, Zoll restored cardiac action in patients with Stokes-Adams syndrome by transthoracic pacing.[2] Cardiac monitors were the next development that applied principles of galvanic control of heart function. Lillihei, in 1958, attempted to introduce pacemakers that were attached to the myocardium through a thoracotomy, but stimulation failed in seven weeks because of an increased threshold.[3] Improved electrodes appeared the following year and made long-term pacing possible.

Many types of pacemakers have been developed. Those with a fixed rate are technically simpler and fire independently of the heart, but they have a short life and a potential for causing ventricular fibrillation. Demand pacemakers, whose rate can be set at implantation, fire only if the patient's rate drops five beats below the paced rate. Programmable pace-

makers, which permit not only the rate but the pulse width and sensitivity to be changed externally, are especially valuable in the treatment of children. Mercury battery pacemakers have nearly all been replaced by lithium iodide ones.

Pacemakers have two components: A pulse generator, which is implanted below the skin in the upper left abdomen, and two electrodes, which are implanted in the myocardium by a small thoracotomy incision. The electrodes may be bipolar, with both leads implanted in the heart, or unipolar, with one lead in the heart and one remaining within the pulse generator.

**Anatomy of Conduction**

Normal conduction is initiated by the highly sensitive cells in the sinoatrial node in the wall of the right atrium near the junction of the superior vena cava, lateral to the crista terminalis. Although there is some dispute, most pathologists recognize three internodal tracts that lead from this node through the anterior, medial and posterior fibers to the atrioventricular node, which lies on the base of the atrial septum near the coronary sinus opening, mainly on the right atrial aspect of the fibrous body. The bundle of His, or common AV bundle, passes from the AV node through the fibrous portion of the membranous septum to the muscular interventricular septum, and then subdivides to the right and left bundles, which extend subendocardially along the septal surfaces. The left bundle branches, whereas the right bundle remains intact until it has passed through the moderator band deep in the ventricular muscle. Complete AV block can occur only when conduction is interrupted between the atrium and ventricle at the level of the AV node, within the His bundle, or within the right and left main branches. The PR interval in children in subdivided into the PA interval, normally 21.2 ± 7.1 milliseconds, the AH interval, normally 72.2 ± 15.9 milliseconds, and the HV time, normally 39.8 ± 5.2 milliseconds.[4] In general, blocks at or below the His bundle widen the QRS interval and are more threatening to the child than are blocks higher in the AV node.

**Developmental Pathology**

The embryology and pathology of the AV node and bundle of His have been meticulously studied by Lev[5], James[6] and others. According to James, the AV node and His bundle originate as separate structures embryologically but join together early in fetal development. By the sixth to eighth week of gestation, the heart is well formed, the sinus node is present and the His bundle is molded. Any deformation of the atrial septum disrupts atrial pathways and may alter conduction. Lev has noted that developmental anomalies of parts of the conduction system, as well as congenital or neonatal degeneration of parts of the conduction system, appear to be hereditary. Complete AV block may be due to the absence of the AV node, to fibrous changes in the node or to local degeneration either within the conduction system itself[7] or within the surrounding tissue, affecting the conduction fibers secondarily via the blood or nerve supply (e.g., an area of necrosis of the central fibrous body may interrupt the penetrating portion of the bundle of His). Finally, atrioventricular block may be due to surgical injury. Defects of the conduction system are associated, in about one-third of the cases, with other congenital cardiac defects, especially L-transposition of the great arteries, complex ventricular septal defects, or primum atrial septal defects.[8]

**Heart Block and Pacemakers at MCV**

In our experience, ten children at the Medical College of Virginia have required a pacemaker for congenital complete heart block (CCHB) since 1965. Between 1960 and 1963, three children died of congenital complete heart block without benefit of pacing. Our population of children with complete heart block treated with pacemakers also includes 15 who experienced damage to their conduction pathways during surgical repair of complex congenital heart disease. Three children with a sick sinus syndrome, one without surgery and two postoperative, also have pacemakers. The current total study population is outlined in Table 1.

**Table 1. Pacemaker Population**

| | Currently followed | Dead | Moved away | Total |
|---|---|---|---|---|
| Congenital complete block | 4 | 4 | 2 | 10 |
| Surgical block | 9 | 0 | 6 | 15 |
| Sick sinus syndrome | 3 | 0 | 0 | 3 |
| TOTAL | 16 | 4 | 8 | 28 |

**Congenital Complete Heart Block**

In 1901, Morquio[9] first described congenital complete heart block as a familial entity, reporting a slow pulse in five of eight siblings. Diagnostic criteria include electrocardiographic evidence in relatively young individuals and a history of slow pulse at an early age, with no accountable infection or surgery that might have caused the heart block postnatally. The atria and ventricles should beat independently, with ventricular rate slower than atrial rate and no captured beats. Individual reports of CCHB are nu-

merous: in 1973, Hussan[10] found 150 cases in the literature. Campbell[11] reported six patients, ages 47 to 67 years, who were still living 34 to 40 years after their CCHB had first been diagnosed. In 1972, Michaelsson and Engle[12] combined and tabulated data on 599 children with CCHB reported by European and American cardiologists, finding 418 with no associated heart disease. Their greatest risk of death was early in infancy from Stokes-Adams attacks and cardiac failure; after ten years, 92% were still alive. The other 181 children had associated congenital heart disease. Their risk of death in infancy was greater; their mortality rate was 42%. Only one death occurred in 23 infants with a ventricular rate greater than 55 and an atrial rate less than 140. Although a positive family history, especially with maternal transmission, was often noted, no etiology was identified in the previous studies. Michaelsson and Engle estimated the incidence of CCHB at one in 20,000 live births, with approximately two-thirds having no associated heart disease and one-third having complicated congenital lesions.

The coincidence of five cases of congenital complete heart block within a few months at the Medical College of Virginia in 1975 prompted us to review all children with CCHB during the preceding 12 years.[13] One infant born to a mother with known systemic lupus erythematosus had a lupus-like rash and AV block in the neonatal period; a brother also had CCHB. Thus, our retrospective study of 26 patients (24 at MCV and two from other centers) included evaluation not only of the patients but especially of their mothers. Histories, symptoms of connective tissue disease, and the mothers' antinuclear antibodies (ANA), rheumatoid factor and complement were investigated by Dr. Shaun Ruddy in the MCV connective tissue laboratory. Seven mothers of nine children had overt connective tissue disease, while four mothers of five children had only laboratory evidence of connective tissue disease. Eight children with congenital AV block were born to eight mothers with no symptoms or laboratory evidence of connective tissue disease, and four mothers were not available for study.

We postulate that antinuclear antibodies of the IgG class cross the placental barrier and cause transient skin lesions of lupus in some neonates and may damage the fetal cardiac conducting system and surrounding myocardium, leading, in some cases, to complete AV block. The mother may be asymptomatic during her pregnancy. In fact, recent studies have indicated that if a child is born with CCHB, the mother should be followed for evidence of future connective tissue disease.[14]

Heart block is often clinically recognizable at birth and occasionally even before birth, when the physician recognizes a heart rate below 80 per minute. A regular ventricular rate between 30 and 115 may be present. There are often systolic and diastolic murmurs, especially at the apex, with an increased stroke volume and irregular third heart sound. Cardiomegaly has been found in the majority of cases. Left ventricular hypertrophy on the electrocardiogram may be related to associated endocardial fibroelastosis, secondary mitral insufficiency, or the large stroke volume. A syncopal attack, a Stokes-Adams syndrome or cardiac failure are ominous at any age. A positive family history, a long QT, and especially a QRS width greater than normal for age, indicating a low block in the conduction system, augur a poor prognosis.

Thirty-two patients with congenital complete heart block have been seen at MCV since 1965; six new cases have been added since the previous report in 1977[13] (Table 2). Ten have required a pacemaker.

**Table 2. Congenital Complete Heart Block, 1963–1980.**

| | | |
|---|---|---|
| Followed at MCV | | |
| Satisfactory course; no pacing | | 16 |
| Satisfactory course with pacemaker | | 4 |
| Died | | 6 |
| Without pacemaker | 2 | |
| With pacemaker | 4 | |
| Moved away | | |
| Satisfactory course with pacemaker | | 2 |
| Course unknown; no pacer when last seen | | 4 |
| TOTAL | | 32* |

* Includes 26 patients in previous report[13] and six new patients seen since 1976.

Two unpaced patients died, one a neonate with complete endocardial cushion defect, polysplenia and situs indeterminus, and the other an infant with severe meconium aspiration and heart block. Five of the ten patients with pacemakers have associated congenital heart disease: One has isolated L-transposition with a ventricular inversion; one, L-transposition with ventricular septal defect (VSD); one, L-transposition with a VSD, hypoplastic posterior ventricle, and coarctation of the aorta; one, infundibular pulmonic stenosis and a small atrial septal defect. One paced patient has been found to have an atrial and ventricular septal defect with sick sinus syndrome (SSS). Three of our patients have intrinsic myocardial disease verified by catheterization or autopsy. Pacemaker malfunctions or accidents during implantation account for three deaths.

Eight of the 11 mothers whose children with CCHB required pacing had maternal lupus, a positive ANA, or rheumatoid factor. An additional 8-year-old CCHB

Table 3. Indications for Pacemaker.

| | Current population |
|---|---|
| Congenital complete heart block with resistant cardiac failure | |
| Marked cardiomegaly with dyspnea on exertion | 2 |
| Atrial rate >150 and ventricular rate <40 | — |
| Syncope | 2 |
| Surgical complete heart block | |
| Persistent >14 days postop | 9 |
| His bundle studies show block within or below bundle | — |
| Sick sinus syndrome | 3 |
| TOTAL | 16 |

patient whose mother has a positive AHA has now developed a ventricular rate of 35 and increasing width of the QRS and may require permanent pacing in the future.

Indications for implantation of a pacemaker are listed in Table 3. The evaluation of CCHB in a candidate for a pacemaker requires careful consideration, including a detailed history of spells, syncope, dizziness or confusion. Our primary indication for pacing in a newborn is a ventricular rate below 40 per minute and an atrial rate above 150 per minute, along with cardiac failure that cannot be controlled immediately with digitalis. Indications in older children are syncope or severe dyspnea on exertion with either a very slow heart rate or cardiac failure. Further definitive tests include not only the electrocardiogram and chest x-ray, but nocturnal Holter monitoring, stress tests and intracardiac electrocardiography.

Overnight monitoring of ten of our patients with congenital heart block revealed a functional exit block in two, and additional cardiac conduction defects, such as a left or right bundle branch block, in two. The presence of ectopic atrial pacemakers in three patients indicated probable binodal disease. Our data are consistent with reports of Levy, Camm, et al[15] who monitored 20 patients with CCHB, both awake and asleep, and found ventricular rates below 20 per minute in 75%, chiefly with 2:1 or 3:1 exit block. The atrial rates varied greatly, while the ventricular rates were usually fixed. Other arrhythmias were noted in 60%.

Cardiac contractility was evaluated in our ten patients by the echocardiogram, and it was low in three patients, borderline in four and normal in three. Stress tests on the same CCHB patients revealed four with increasing AV block during and after exercise and three with no change but essentially a fixed ventricular rate and normal atrial response. An Isuprel drip may be valuable briefly for a Stokes-Adams attack or to palliate emergency cardiac failure secondary to heart block, but immediate pacing is dictated by the indications listed in Table 3.

We have not observed any permanent complete heart block related to rheumatic fever, diphtheria, drugs or toxins.

### Surgical Heart Block

Over the past ten years 1,016 pediatric cardiac surgical procedures have been performed at MCV, and persistent AV block more than two weeks after the procedure has been seen infrequently. Whenever a ventriculotomy is performed, temporary pacing wires are attached to the patient's myocardium for immediate use if required, since even a very temporary block may be serious later. Since 1970, 15 surgical patients have experienced persistent complete heart block of more than two weeks' duration, primarily related to surgery in the ventricle and involving the AV node. Two children have a postoperative sick sinus syndrome. Nine of these patients are currently followed here, since several have moved out of town, but none have died (Table 4). Our only non-paced surgical heart block patient, who had D-transposition with an intact ventricular septum, has maintained a junctional rhythm of 70 per minute for over seven years. One patient died without pacing prior to 1970 following a Stokes-Adams attack 30 days postoperatively. The three children with sick sinus syndrome pre- or post-operatively are currently being followed.

The studies of Driscoll, Gillette, et al[16] substantiated the efficacy of permanent pacemaker implantation whenever complete heart block persists longer than two weeks postoperatively, especially if the site of the block is within or below the bundle of His (Table 3). Fatal Stokes-Adams attacks pose a serious postoperative threat to children who have

Table 4. Surgical Diagnosis in Pacemaker Patients.

| | | | Currently followed |
|---|---|---|---|
| Tetralogy of Fallot | | 3 | 3 |
| Transposition of the great arteries | | 4 | 2 |
| Complex ventricular septal defect | | 3 | 3 |
| Double outlet right ventricle | | 2 | 1 |
| Atrial septal defect/ventricular septal defect | | 2 | |
| Single ventricle | | 1 | |
| Sick sinus syndrome | | 2 | 2 |
| Tetralogy of Fallot | 1 | | |
| Incomplete endocardial cushion defect | 1 | | |
| TOTAL | | 17 | 11 |

undergone cardiac surgery traumatic to the His bundle.[17-20] We have found that a six-second hiatus in ventricular activity during Holter monitoring of subjects with a bradycardia and an SSS constitutes an additional indication for pacing. Tachycardia in two of our surgical patients with SSS is controlled with digoxin and propranolol, while the bradycardias are regulated by a pacemaker.

The evaluation of the post-surgical candidate for pacing is outlined in Table 5. Three of our patients have been catheterized postoperatively, as recommended by Gillette, with assessment of intracardiac

**Table 5. Studies Recommended to Evaluate Need for Pacing.**

1. Serial ECGs
2. Holter overnight monitor and/or telephone telemetry
3. Chest roentgenogram
4. Stress test
5. Cardiac catheterization
   a. Intracardiac conduction times
   b. Rapid atrial pacing

conduction time and rapid atrial pacing. An antegrade HV time that is absent, split or retrograde to the QRS complex indicates that the block is low and permanent pacing is essential.

**Pacemaker Experience**

Since it became available two years ago, the "microlith P," manufactured by Cardiac Pacemaker, Inc. (CPI), has been used. It can be programmed in increments of one beat per minute from 30 to 119, and the 35-gram lithium generator size permits its insertion under the abdominal skin, even in the neonate. The generator has a magnet rate of 100 and can be programmed in three seconds for either rate or impulse spike width. The magnet rate is the same as the paced rate, plus or minus two to three beats per minute. Early in 1980, Medtronic introduced a new 45-gram unit, 10 millimeters thick, that can also be programmed for rate, pulse width and sensitivity. Wires are introduced via a thoracotomy for placement either anteriorly or posteriorly on the ventricular surface in the site requiring the least current for impulse transmission. The generator is implanted below the diaphragm, anteriorly or posteriorly, in the left flank.

Our 16 patients currently followed have undergone 35 procedures. All repeat procedures, except one, have involved older Medtronic units. Of two patients who have required repeat thoractomy, one has had two repeat thoracotomies and four additional procedures, including one broken platinum wire and three generator failures over a ten-year period. Two patients had four units in seven years; one patient has had two units in four years; another, two units in 18 months; and the rest have had one unit each.

If one compares the above figures with those of Gamble[21] who in 1967 reported that patients averaged a procedure every three months because of infections, improper sensing, wire breakage or generator failure, or with those of Staunton,[19] who in 1975 reported the procedure interval to be slightly greater than six months, the advantage of the lithium iodide unit is obvious. Our implantations prior to 1977 were mercury-zinc models, which demanded the multiple operations to accomodate a growing child. The new smaller lithium unit, on the other hand, can be reprogrammed at any time, and, because the magnet rate of 100 is usually different from the paced rate, testing is simple. When the magnet rate drops in increments of six to eight over a three-month period, the generator should be replaced. In our two-year experience with these units, which should last seven to 12 years, we have not yet encountered a failure.

A 1979 report of the psychological impact of artificial pacemakers on 26 patients, studied for ten years before the advent of lithium batteries,[22] revealed severe psychological problems in children and adolescents. Loneliness, boredom and even suicidal tendencies from depression, anger and death fears were common. The average interval between hospitalizations was 16 months. The more stable, longer life of the lithium pacemaker permits much less frequent hospitalization, and we hope that most of the severe psychological problems will be averted in the future.

A program has been instituted at MCV for regularly scheduled, as well as emergency, telephone transmissions of pacemaker performance for all pacemaker patients. Verbal instructions and a demonstration are given to the patients and parents before the child leaves the hospital, along with a transmitter and an instruction card. When the patient calls, a 24-hour emergency answering service responds; the patient listens for the taped message, gives his name and telephone number, and proceeds with the transmission. The receiver of the emergency service telephone, placed atop a CPI "cardiotrack" receiver, provides a sound signal, which has been converted from the pacemaker's electrical impulse by the patient's transmitter, to the CPI "cardiotrack". The unit, in turn, reconverts the signal to an electrical signal for electrocardiographic strip recording, together with a digital read-out of rate, width and interval. Calling from any telephone, the physician can summon the recorded information and receive an auditory signal. A tape commander, held over the mouthpiece, permits the tape to be rewound and heard without eras-

ing and allows an immediate determination of the patient's condition. Patients are instructed to transmit immediately upon returning home from the implantation hospitalization, then one week later and again one month later. Thereafter, transtelephonic transmission is repeated once every three months, unless suspected trauma or malfunction demands immediate attention. Applying the transmitter twice a day to the chest wall allows the patient or his parent to check the pacemaker function. If the patient is in sinus rhythm part of the time, the magnet must be placed over the generator site to permit assessment of pacemaker function. A magnet check is automatic with each transmission. The technique is so simple that a 6-year-old child can perform the procedure.

The transmitter can also be used by patients with suspected paroxysmal tachycardia or other arrhythmia to document an episode and permit identification of the arrhythmia for diagnosis and treatment.

DR. ZANGA: Are temporary transvenous pacemakers useful in children?

DR. MCCUE: They are used primarily in the newborn who is in severe cardiac failure and often has an atrial rate greater than 150 and a ventricular rate less than 50. These infants are very fragile. The temporary transvenous pacemaker is inserted at the time of the cardiac catheterization, to verify the associated congenital lesions. The permanent pacemaker can then be inserted within a few days, with the child protected through anesthesia and thoracotomy. An older patient with congenital complete heart block usually requires a temporary pacemaker for general anesthesia.

DR. SPENCER: What is the cost of the lithium pacemaker?

DR. MCCUE: At this time, lithium pacemakers cost approximately $3,000. For children, we are recommending the demand pacemaker that can be programmed.

DR. MAURER: What is the normal life expectancy of the pacemaker?

DR. MCCUE: The unit now employed has a guaranteed life of seven years, but many should last ten to twelve years. If the pacemaker rate can be decreased to 60 per minute as the child grows, the pacemaker will have a longer life.

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**It took a bit of sleuthing,** but at last we give you here the identities of each of the 209 doctors and four medical students who appeared in the panoramic picture published in the December 1980 issue of VIRGINIA MEDICAL. Mysteries abounded in the task; some delegates listed by the Credentials Committee as present were not there at all, others who missed the committee's list made the picture, and two faces, long puzzled over, turned out to belong to visiting medical society presidents.

Our hearty thanks to all who so kindly helped with the detective work—the many doctors who answered our inquiries; the secretaries of the component medical societies who tracked down crucial clues; and two staff members who were indispensable throughout, Bob "Sherlock" Howard and Will "Watson" Osburn. A larger version of this photograph, accompanied by this identifying information, will be framed and hung at Medical Society of Virginia headquarters, there to be enjoyed by future generations of Virginia physicians.

1. CHARLES L. CROCKETT, JR., MD
2. ROBERT J. GILLANDERS, MD
3. LAWRENCE K. MONAHAN, MD
4. DAVID E. ROBINETTE, MD
5. EMERSON D. FARLEY, JR., MD
6. DUNCAN S. OWEN, JR., MD
7. RAY A. MOORE, JR., MD
8. ROBERT M. ALLEN, MD
9. LYNN BROADFIELD
10. WILLIAM S. HOTCHKISS, MD
11. K. K. WALLACE, JR., MD
12. CARL E. STARK, MD
13. HASKINS FERRELL, JR., MD
14. JOHN A. MARTIN, MD
15. RICHARD E. PALMER, MD
16. ANTHONY J. MUNOZ, MD
17. PERCY WOOTTON, MD
18. H. C. ALEXANDER, III, MD
19. GEORGE M. NIPE, MD
20. C. BARRIE COOK, MD
21. HAROLD L. WILLIAMS, MD
22. JAMES M. MOSS, MD
23. C.W. COPPEDGE, MD
24. H. ALAN BIGLEY, JR., MD
25. WILLIAM B. BISHOP, MD
26. JOSEPH L. CROSIER, JR., MD
27. CHARLES C. ASHBY, MD
28. THEODORE C. ANDREW, MD
29. C. NEWTON VANHORN, MD
30. ANDREW W. E. BASSETTE, III, MD
31. JOHN W. KNARR, MD
32. ROBERT E. BEATLEY, MD
33. ROBERT A. ABERNATHY, MD
34. EDWARD D. MARTIROSIAN, MD
35. CLARA BELLE WHEELER
36. EDWARD A. ZAKAIB, MD
37. CUSTIS L. COLEMAN, MD
38. CHARLES H. TOWNES, MD
39. EMMETT C. MATHEWS, MD
40. C. M. KINLOCH NELSON, MD
41. BARBARA A. MELLA, MD
42. HANNIBAL E. HOWELL, MD
43. ANN ROCHMIS, MD
44. CHARLES H. CROWDER, JR., MD
45. O. RILEY BOONE, MD
46. CAROL S. SHAPIRO, MD
47. DAVID P. MINICHAN, MD
48. GEORGE J. CARROLL, MD
49. CATHERINE S. CASEY, MD
50. RICHARD L. FIELDS, MD
51. MICHAEL A. PUZAK, MD
52. F. ASHTON CARMINES, MD
53. THOMAS H. JENNINGS, MD
54. JOHN D. FRENCH, MD
55. JOSEPH W. MILAM, MD
56. W. LEONARD WEYL, MD
57. ROBERT H. ANDERSON, MD
58. JOHN N. KING, MD
59. WILLIAM H. BARNEY, MD
60. ARTHUR A. KIRK, MD
61. WILLIAM J. HAGOOD, JR., MD
62. BERYL H. OWENS, MD
63. ROBERT M. KESLER, MD
64. HARRY B. TAYLOR, JR., MD
65. THOMAS C. IDEN, MD
66. ROBERT S. BROWN, MD
67. LEROY K. SMITH, MD
68. JOHN A. OWEN, JR., MD
69. EMORY F. HODGES, JR., MD
70. MUNSEY S. WHEBY, MD
71. JOHN F
72. CEE A.
73. RICHAI
74. GERVA
75. RICHAI
76. ALBERT
77. MICHAI
78. OSCAR
79. ARTHU
80. J. HAYI
81. ROBERT
82. ROBERT
83. LEON A
84. ROBERT
85. LAWRE
86. CARROI
87. JOHN W
88. HILTON
89. WILLIA
90. JACK D.
91. RUSSEL
92. WILLET
93. THOMAS
94. THOMAS
95. GERALD
96. EMILE S
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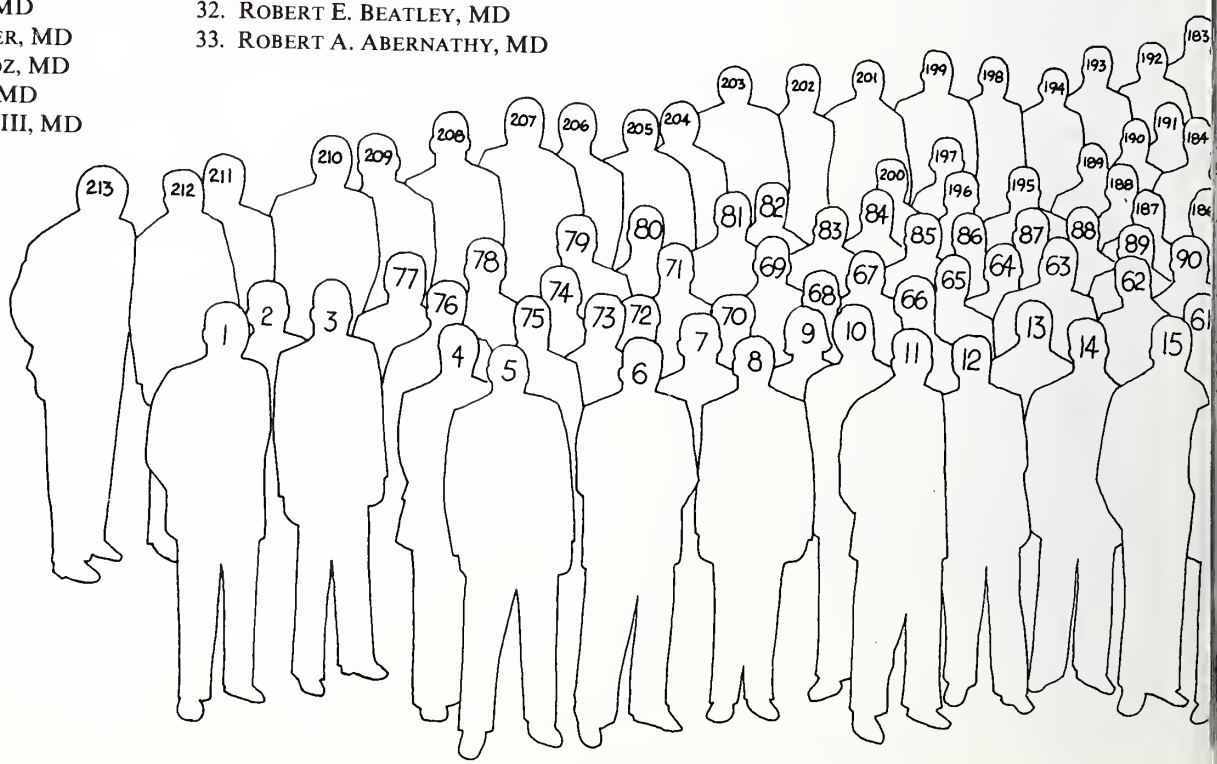
100. IRA J. G
101. JOSEPH S
102. JAMES G
103. NICHOL
104. IRA D. G



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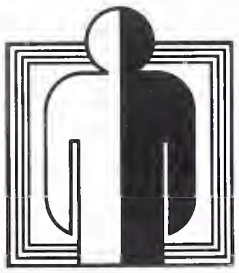

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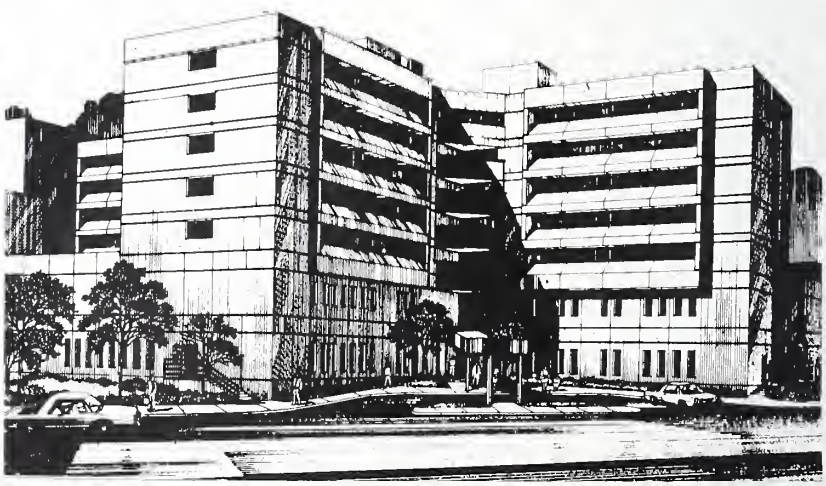

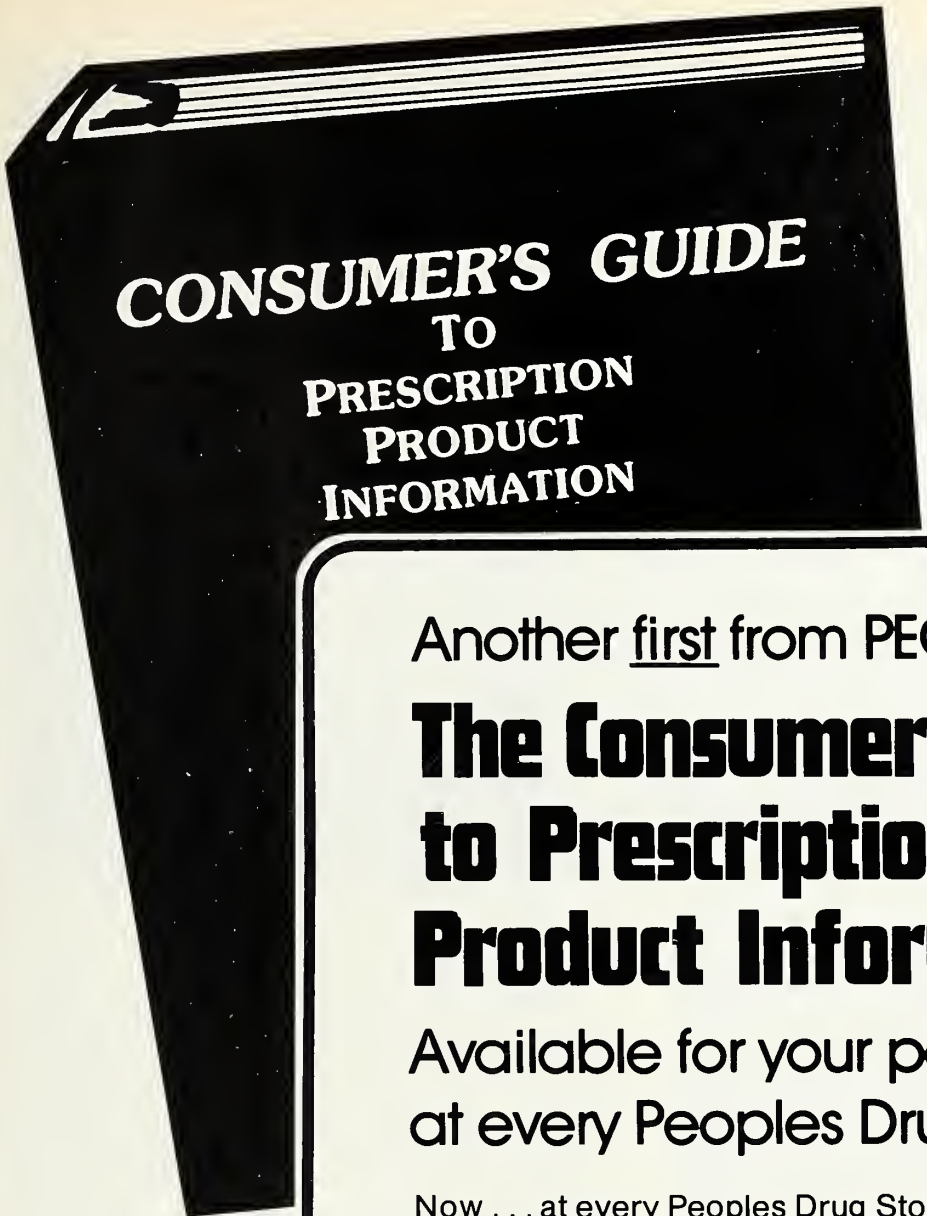


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# Osteogenic Sarcoma Occurring after Irradiation

Richard H. Fitzgerald, Jr., MD, *Charleston, South Carolina,*
and Tapan A. Hazra, MD, *Richmond*

IONIZING irradiation can produce necrosis, growth arrest, fracture, and benign as well as malignant neoplasm in bone.[1] The most common osseous malignant tumor to develop in the irradiated area is osteosarcoma, although fibrosarcoma and chondrosarcoma do occur.[2] Reported here is the case history of a patient who received irradiation as a child and 13 years later experienced several long-term sequelae, including osteosarcoma.

**Case Report**

In December 1966 a 12-month-old boy developed a nodule in the posterior lumbar paraspinal musculature. At age 15 months he underwent excision of a 2.5-cm embryonal rhabdomyosarcoma, with 5-10 mitotic figures per high-powered microscopic field. At age 19 months multiple small nodules appeared in the area of surgical scar, and he received 5987 rad tumor dose (TD) in 41 treatments over 61 days by shrinking fields to the left of the midline from L2 to L5 with two MeV photons; to achieve the most effective treatment, all the irradiation was delivered from the back of the patient. Following this, chemotherapy of actinomycin D, vincristine and cyclophosphamide was begun and continued until local recurrence was noted in June 1968, 15 months after excision and 9 months after completion of irradiation. Wide surgical excision of the area was performed. No other therapy was given, and the patient was subsequently lost to followup.

Seen for an unrelated problem in January 1979 at age 12, the patient was found to have an asymptomatic mass in the left lower quadrant contiguous with the left iliac bone. Roentgenographs demonstrated the left ilium to be smaller than the right and to contain an osteoblastic lesion (Fig. 1). There was scoliosis toward the side of prior irradiation. Intravenous pylogram demonstrated atrophy of the lower one-half of the left kidney and hypertrophy of the right kidney (Fig. 2). Chest tomography and CT scan were normal. Alkaline phosphatase was normal for age 12 at 180, SGOT was 79, and LDH 379. In late January 1979, he underwent left hemi-pelvectomy after biopsy confirmation of sarcoma. There was a 7×9×6-cm mass of chondroblastic osteosarcoma superficially invading the muscle in the area of biopsy. Ten days following surgery, he was begun on adjuvant doxorubicin hydrochloride (Adriamycin®). In mid-1980, more than one year after surgery and chemotherapy, there was no evidence of recurrence or metastasis.

**Discussion**

Marie in 1910 described sarcomas in irradiated animals.[1] In 1922 Beck and Marsch independently re-

This article was begun when Dr. Fitzgerald was a fellow at the Medical College of Virginia under the direction of Dr. Hazra, chairman of the Division of Radiation Therapy and Oncology. Dr. Fitzgerald is now with the Medical University of South Carolina and may be addressed there at the Division of Radiation Therapy, 171 Ashley Avenue, Charleston, SC 29403.

Supported in part by the American Cancer Society, Clinical Fellow #3232A and Grant #5R-25CA22032-02 awarded by the National Cancer Institute.

Submitted 7-14-80.

**Fig. 1. Roentgenograph of 12-year-old patient shows osteosarcoma in hypoplastic left ilium.**

ported bone sarcomas in humans treated for tuberculous arthritis.[2] Martland in 1929 reported two radium-dial painters who developed sarcoma.[3] A higher than expected rate of bone tumor was recorded by Court-Brown and Doll[4] in 1965 in patients treated with external irradiation for ankylosing spondylitis; they questioned, however, the validity of this increase because of the dependence on death certificate statements.

In 1948 Cahan[5] described cases of irradiation-related bone sarcoma with four criteria in common:

1) Microscopic or radiographic evidence of the initial non-malignant nature of the involved bone.
2) Sarcomas developed in areas previously included within radiotherapeutic beams.
3) All sarcomas were proven histologically.
4) A relatively long asymptomatic latent period (greater than five years) elapsed after irradiation before the clinical appearance of the sarcoma.

Modifications of Cahan's criteria have been proposed. Senyszyn[6] suggested that roentgenographic evidence of osteodysplasia more than one year prior to the onset of obvious malignancy would not be seen with spontaneous neoplasm and implied that prior x-ray studies were required for positive implication of

**Fig. 2. Intravenous pyelogram of same patient, showing hypoplastic left kidney and scoliosis.**

Table 1. Occurrence of Osteogenic Sarcoma in Irradiated Survivors of Prior Malignancy.

| Group | Number at Risk | occurrence | Occurrence Rate |
|---|---|---|---|
| General Population[11,13] | 117,000 | 1 | 0.00085% |
| Sagerman[10] | | | |
| Retinoblastoma | 243 | 9 | 3.7% |
| Tountas[9] | 29,000 | 10 | 0.035% |
| Cervix | 3,500 | 2 | 0.06% |
| Breast | 8,000 | 4 | 0.05% |
| Hatfield, Schulz[11] | | | |
| Breast | 900 (estimate) | 2 | 0.22% |
| Phillips, Sheline[12] | 2,300 | 2 | 0.1% |
| Cervix | 505 | 1 | 0.2% |
| Breast | 445 | 1 | 0.22% |

irradiation. Cohen[7] described a juxtacortical lucency in a rib two years after therapy for Wilm's tumor, with a sarcoma diagnosed one year later, or three years after therapy. Arlen[1] also described cases with a shorter latent period and included reticulum cell and Ewing's sarcomas, thus expanding Cahan's criteria to include sarcomas devoid of osteoblastic activity. Doses as low as 1200 rad have been incriminated, though most have followed greater than 3000 rad.

The neoplastic hazard following irradiation of a large portion of the skeleton appears to be leukemia or a related hematological disorder, but for limited field exposure a bone malignancy is more likely. The area of endosteal surface is much greater than the area of periosteal surface, and when studied, osteogenic sarcoma does appear to arise from the endosteal surface.[2] A hypocellular marrow with hyperplastic fibroblasts interspersed with practically intact bone suggests that the sarcomatous change occurs in areas of intermediate damage.[8] All bones of the skeleton are at risk.[1,7,9]

Continued long-term followup of large registries of patients is needed to provide meaningful occurrence rates for osteogenic sarcoma. The available data of 3- to 10-year followup are helpful, however, and incidence seems to increase with dose.[9,10]

Tountas[9] concluded the incidence to be 0.05-0.2% among survivors given current therapeutic dosages of 4000-7000 rad. He reported ten cases among 29,000 5-year survivors, providing a crude rate of 1 in 2900 (0.035%) for all patients; included were two women among 3500 5-year survivors of breast cancer therapy (0.05%). Hatfield and Schulz[11] reported an incidence of 0.22% among their 10-year survivors of breast cancer treatment. Phillips and Sheline[12] saw an incidence of 0.1% in 2300 5-year survivors.

To place these figures in perspective, the spontaneous rate is one case in 117,000[13] to one in 200,000[11] in the general population. These figures indicate a 41- to 258-fold increase in occurrence rate in irradiated patients compared with the general population, a significant finding at the $P < .01$ level (Table 1). Sagerman et al[10] reported nine cases of osteogenic sarcoma among 243 patients irradiated for retinoblastoma; this incidence (3.7%) reflects the apparent increased susceptibility of patients with retinoblastoma to osteosarcoma both within and removed from the irradiated site.[11,13] After irradiation, patients apparently cured of localized Ewing's sarcoma have an increased incidence of osteogenic sarcoma in the treated bone.[14]

Radical surgery is the preferred treatment for radiation-induced osteosarcoma,[1] but when surgery has not been possible, radiation has been used with transient palliative benefit.[1,8]

No series has addressed the role of chemotherapy in radiation-induced osteogenic sarcoma; in one case where it was used, there was transient and partial pain relief.[15]

The prognosis of radiation-induced lesions appears to parallel that of spontaneous osteogenic sarcoma. Dahlin[16] reported a survival rate of 20.3% of his total series and 17.3% of patients with radiation-induced lesions. Arlen[1] reported a survival rate of 17.8% of all cases (552) and 28% (14 of 50) of patients with radiation-related disease.

The authors gratefully acknowledge the assistance of Dr. C. Russell and Dr. J. Terz, who supplied followup data, and C. B. Loadholt, who provided statistical assistance.

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induced neoplasia following external beam therapy for children with retinoblastoma. Amer J Radiol 105:529-535, 1969
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# Affect of Disposable Draping on Wound Infection Rate

Bonnie C. Baldwin, RN, Ingrid L. Fox, RN, and Clarke Russ, MD,
*Virginia Beach, Virginia*

DISPOSABLE draping was found to have a beneficial effect on the wound infection rate in the General Hospital of Virginia Beach, a 263-bed community hospital engaged in all major aspects of surgical care. This report describes the study that led to that finding.

Before the era of the disposable version, drapes at this hospital were muslin of 140-per-square-inch thread count. Holes were cross-stitched with a sewing machine, and no thermal patches were used. Linen was casually inspected by operating room or central supply personnel and washed outside the hospital by a commercial laundry, which delivered it in uncovered carts. Packs were prepared in the operating room or in central supply. Gowns were not impermeable.

The disposable drapes used during this study were made of 40% polyester and 60% wood pulp. The basic fabric was Sontara® by Dupont. The Surgikos Division of Johnson & Johnson treats this basic fabric two ways: with a fluorocarbon liquid repellant yielding zero bacterial penetrance (Fabric-456®) and with an impervious polyethylene coating (Drisite®). These drapes are reinforced at critical points.

In most instances, actual wound surfaces were coated with clear, adhesive barrier draping.

Wound infection reports were solicited and prepared by the infections control nurse and were categorized according to US Public Health guidelines.[1] Personnel participating in the survey represented a cross-section of the staff and remained materially unchanged during the period of study.

An effort was made to eliminate major disturbances in the operating suite environment, i.e., sterilizer failure, construction modifications, etc. The hospital is a primary care center for a community of ¼ million people, and the patient population was the normal cross-section of the community. The professional staff was well-schooled in aseptic discipline, and few nonessential personnel were allowed in the operating suite. For the period of this study, only one kind of disposable drape was used, so that personnel became well accustomed to the material and errors in draping techniques were kept to a minimum.

**Table 1. Effect of Disposable Draping on Wound Infection Rate in the General Hospital of Virginia Beach.**

| | Total Patients | Total Surgeries | No. Infections | Percent |
|---|---|---|---|---|
| July–Dec. 1979 Muslin Draping | 2978 | 3152 | 35 | 1.11 |
| July–Dec. 1980 Disposable Draping | 3050 | 3236 | 15 | .43 |

Table 1 gives the data. In 1979, when the muslin draping was used, there were 3,152 surgical procedures on 2,978 patients with an overall wound infection rate of 1.11%. But in the same period in 1980, when disposable draping was used, there were 3,236 surgical procedures on 3,050 patients with a wound infection rate of .43%.

These results indicate that disposable draping in this hospital's operating room effected a significant reduction in the risk of postoperative wound infection. We believe their barrier draping technique should be encouraged in other hospitals as standard surgical care.

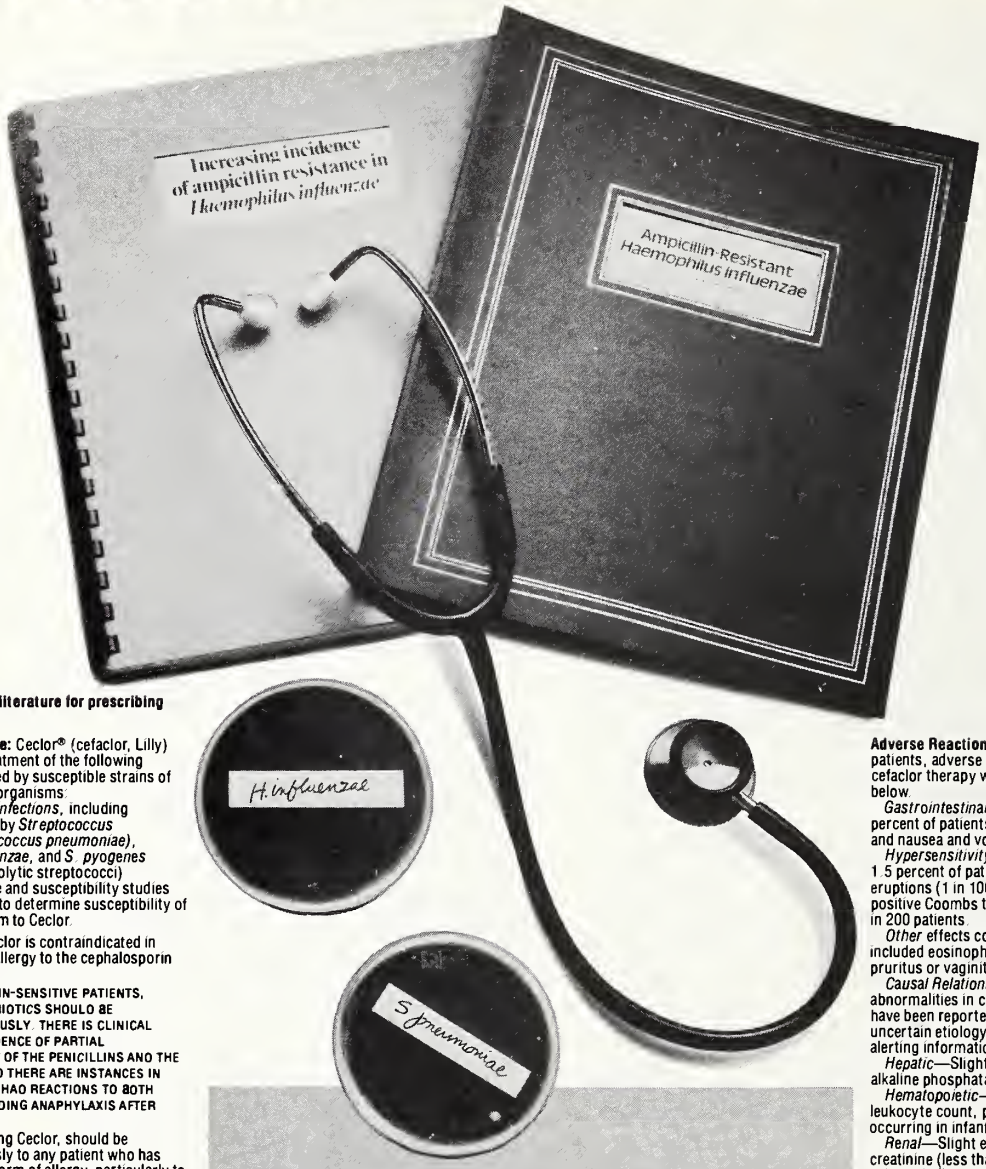
Address correspondence to Dr. Russ at 1100 First Colonial Road, Virginia Beach VA 23454.

Submitted 2-26-80.

**Reference**

1. Outline for Surveillance and Control of Nosocomial Infections. US Department HEW, Center for Disease Control, Bureau of Epidemiology, 1972

# An added complication... in the treatment of bacterial bronchitis*




**Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]**

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**Brief Summary.**
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**Indications and Usage:** Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

*Lower respiratory infections*, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

**Contraindication:** Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

**Warnings:** IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

**Precautions:** If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

*Usage in Pregnancy*—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

*Usage in Infancy*—Safety of this product for use in infants less than one month of age has not been established.

**Adverse Reactions:** In clinical studies in 1493 patients, adverse effects considered related to cefaclor therapy were uncommon and are listed below.

*Gastrointestinal* symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

*Hypersensitivity* reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

*Other* effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

*Causal Relationship Uncertain*—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

*Hepatic*—Slight elevations in SGDT, SGPT, or alkaline phosphatase values (1 in 40).

*Hematopoietic*—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

*Renal*—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [070379R]

* Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

*Note:* Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.


*Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.*

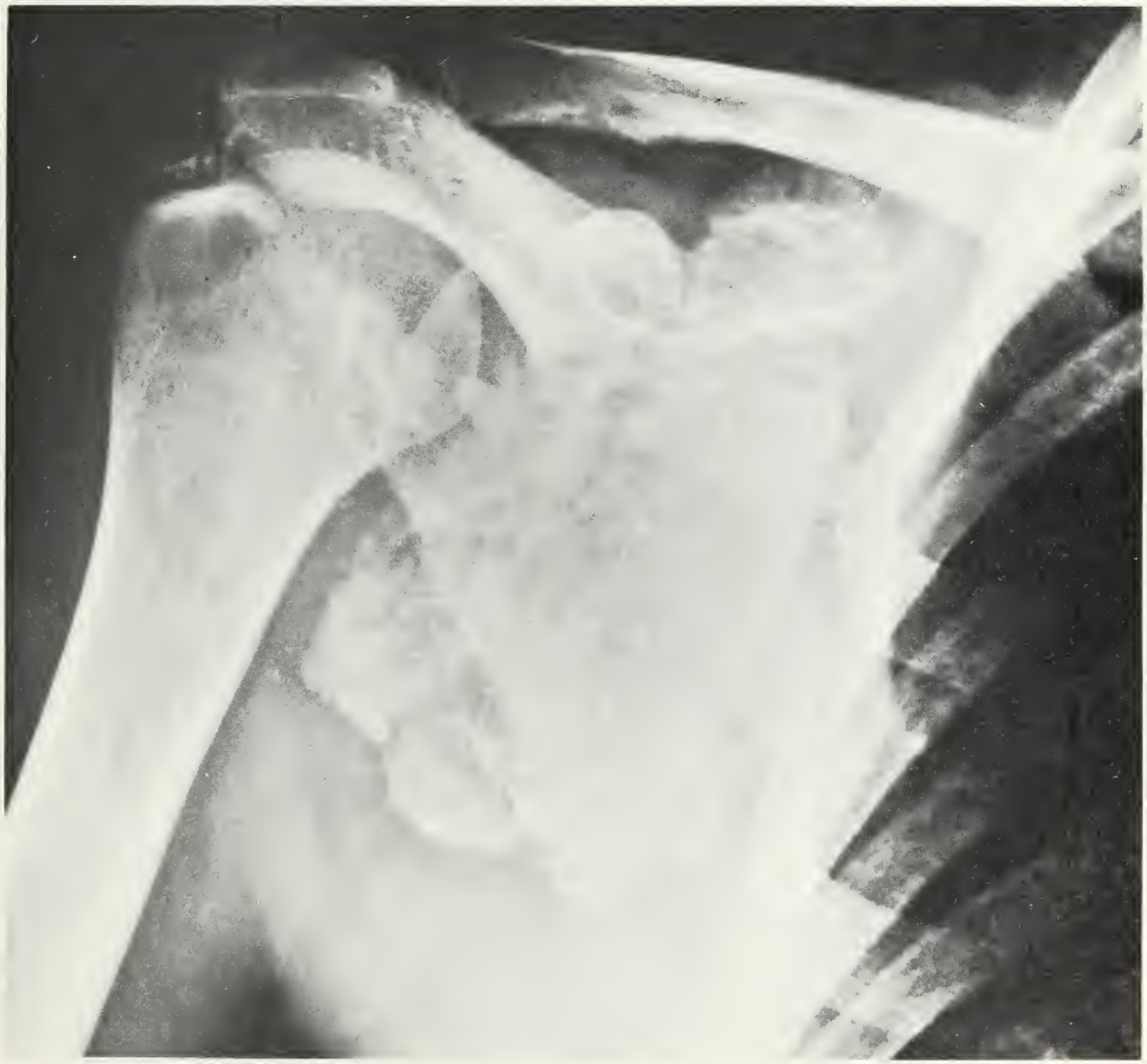
**Eli Lilly Industries, Inc.**
Carolina, Puerto Rico 00630

000482

# Can You Diagnose This?

A medical puzzle prepared by
Thomas Lee Pope, Jr., MD, *Charlottesville*

This is a plain radiograph of the right shoulder in a young male with a chronic hereditary disease. There was pain and limitation of motion as well as a palpable mass in this shoulder. *From the Department of Radiology, University of Virginia School of Medicine, Charlottesville.*



DIAGNOSIS/DISCUSSION NEXT PAGE

## DIAGNOSIS

Tumoral calcinosis secondary to Alport's syndrome (hereditary nephropathy and sensorineural deafness)

## DISCUSSION

The large, lobulated, calcific mass shown in the radiograph adjacent to the right shoulder is typical of the masses of "tumoral calcinosis", a term coined by Inclan in 1943 to describe peculiar calcific deposits in a family[1]. The most common sites of involvement are the hips, elbows and shoulders, but any joint can be affected.

Macroscopically, these masses are firm, rubbery and surrounded by a fibrous capsule. They adhere to adjacent muscles and tendons and can cause pain by placing pressure on nearby nerves. They never invade or cause inflammatory changes in surrounding tissues, however. Microscopically, the tumors are fluid-filled cysts separated by fibrous septae. The fluid is usually alkaline and contains granules of stainable calcium. Occasionally there is increased vascularity, and chronic inflammatory cells may be present. Necrosis is not commonly seen[2].

Tumoral calcinoisis can be divided into primary and secondary types. The primary kind may have a familial tendency and occurs most frequently in young males between the ages of 6 and 25. These patients most commonly present with swelling and limitation of motion of the joints affected by the large masses, and laboratory investigation shows normal serum calcium and phosphorus and normal renal function. The etiology of this primary type is unknown.

The secondary form occurs in chronic vitamin-D intoxication, the milk-alkali syndrome, primary hyperparathyroidism and, as in this case, chronic nephritis. All of these diseases may cause elevated serum calcium levels, and this is the presumed reason these tumors occur. The exact mechanism of the calcific deposition is unknown[3].

Tumoral calcinosis usually requires no treatment until the masses become painful from pressure on nearby nerves or until they are cosmetically unacceptable. Treatment in such cases is surgical removal. This young man underwent surgery, and his right shoulder is now asymptomatic.

Unfortunately, there is no way to predict which patients will develop tumoral calcinosis, and close followup with physical examination and radiography is the mainstay of diagnosis.

### References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3. Palmer PES: Tumoral calcinosis. Br J Radiol 39:518–525, 1966



**CYCLAPEN®-W** (cyclacillin)

**Indications**

*Cyclacillin has less in vitro activity than other drugs in the ampicillin class and its use should be confined to these indications:* Treatment of the following infections:

RESPIRATORY TRACT

Tonsillitis and pharyngitis caused by Group A beta-hemolytic streptococci

Bronchitis and pneumonia caused by *S. pneumoniae* (formerly *D. pneumoniae*)

Otitis media caused by *S. pneumoniae* (formerly *D. pneumoniae*) and *H. influenzae*

Acute exacerbation of chronic bronchitis caused by *H. influenzae**

*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.

SKIN AND SKIN STRUCTURES (integumentary) infections caused by Group A beta-hemolytic streptococci and staphylococci, nonpenicillinase producers.

URINARY TRACT INFECTIONS caused by *E. coli* and *P. mirabilis*. (This drug should not be used in any *E. coli* and *P. mirabilis* infections other than urinary tract.)

NOTE: Perform cultures and susceptibility tests initially and during treatment to monitor effectiveness of therapy and susceptibility of bacteria. Therapy may be instituted prior to results of sensitivity testing.

**Contraindications** Contraindicated in individuals with history of an allergic reaction to penicillins.

**Warnings Cyclacillin should only be prescribed for the indications listed herein.**

**Cyclacillin has less in vitro activity than other drugs of the ampicillin class. However, clinical trials demonstrated it is efficacious for recommended indications.**

**Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.**

**Precautions** Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

**Adverse Reactions** Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

*Patients with Renal Failure* Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

**Dosage** (Give in equally spaced doses)

| INFECTION | ADULTS | CHILDREN* |
|---|---|---|
| *Respiratory Tract* | | |
| Tonsillitis & Pharyngitis | 250 mg q.i.d. | body weight < 20 kg (44 lbs) 125 mg q.i.d.<br>body weight > 20 kg (44 lbs) 250 mg q.i.d. |
| Bronchitis and Pneumonia | | |
| Mild or Moderate Infections | 250 mg q.i.d. | 50 mg/kg/day q.i.d. |
| Chronic Infections | 500 mg q.i.d. | 100 mg/kg/day q.i.d. |
| *Otitis Media* | 250 mg to 500 mg q.i.d.† | 50 to 100 mg/kg/day† |
| *Skin & Skin Structures* | 250 mg to 500 mg q.i.d.† | 50 to 100 mg/kg/day† |
| *Urinary Tract* | 500 mg q.i.d. | 100 mg/kg/day |

*Dosage should not result in a dose higher than that for adults.
†depending on severity

Wyeth Laboratories
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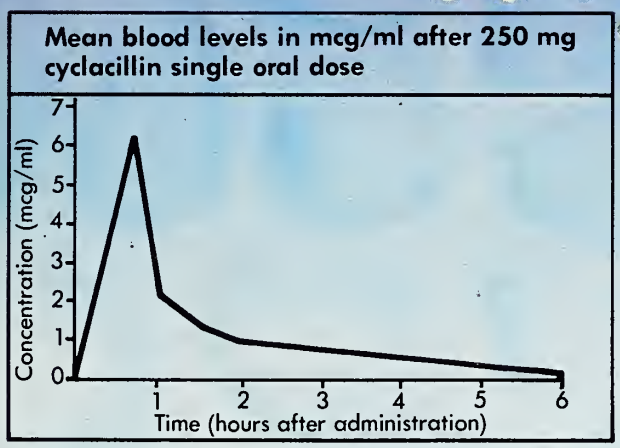
# Half the dose is absorbed in 9 minutes!

**compared to 32 minutes for ampicillin.***




- Rapid, virtually complete absorption from GI tract
- Exceptionally high peak blood levels – 3 times greater than ampicillin (Clinical efficacy may not always correlate with blood levels.)
- Rapidly excreted unchanged in urine – 1½ times faster than ampicillin

*Based on $T^{a}$ ½ values for single oral doses of 500 mg cyclacillin tablet and 500 mg ampicillin capsule. Data on file, Wyeth Laboratories.

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**Fewer episodes of diarrhea and rash than with ampicillin in studies to date.**

**Efficacy proven in the treatment of bronchitis, pneumonia, and upper respiratory infections.†**

In 117 patients, 73 with bronchitis/pneumonia caused by *S. pneumoniae* and 44 with streptococcal sore throat caused by Group A beta-hemolytic streptococcus, CYCLAPEN®-W achieved a clinical response rate of 100%! Bacterial eradication was 95% and 86% respectively.

†Due to susceptible organisms.

**See important information on facing page.**

# CYCLAPEN®-W

(cyclacillin) 250 and 500 mg Tablets
125 and 250 mg per 5 ml Suspension

**more than just spectrum**

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The Medical Society of Virginia
PROCEEDINGS

# Minutes of Council

A meeting of the Council of The Medical Society of Virginia was held in Richmond at Society headquarters on Saturday, April 25, 1981.

*Members Present:* Dr. Percy Wootton; Dr. H. C. Alexander, III; Dr. George M. Nipe; Dr. Harold L. Williams; Dr. Richard L. Fields; Dr. William S. Burton; Dr. Frederick K. McCune; Dr. Charles M. Caravati, Jr.; Dr. Charles H. Crowder, Jr.; Dr. Glenn B. Updike, Jr.; Dr. William W. S. Butler, III; Dr. Robert Green, Jr.; Dr. Nicholas G. Colletti; Dr. J. Thomas Hulvey; and Dr. C. Barrie Cook.

*Others Present:* Dr. Anthony J. Munoz, 2nd Vice President; Dr. James B. Kenley, Commissioner, State Department of Health; Dr. W. T. Thompson, Jr., Editor, VIRGINIA MEDICAL; Dr. William H. Barney, Vice-Speaker; Dr. William H. Sipe, Dr. Russell D. Evett, Dr. James A Shield, Jr., Dr. Robert L. Keeley, Dr. John A. Owen, Jr., Dr. Ira J. Green, Dr. James L. Patterson, Jr., and Dr. Leon I. Block, Vice-Councilors; Dr. Michael A. Puzak, Dr. F. Ashton Carmines and Dr. John A. Martin, AMA Delegates; Dr. William J. Hagood, Jr., Alternate AMA Delegate; Dr. Frank J. Jirka, Jr., member Board of Trustees of AMA; Dr. Robert Morton, Chairman, Liaison Committee to PSRO; Mrs. M. Pinson Neal, President, The Medical Society of Virginia Auxiliary; Dr. Harry Kuykendall, Chairman, Vanguard Committee; Dr. Carol Shapiro, representing Prince William County Medical Society; Vaughan Hall, President, UVa Student Medical Society; Sam Barton, representing MCV Student Medical Society; Craig Derkay, President, MCV Student Government; Doug Douglas and Mrs. Carla Mann, representing VaMPAC; Mr. Allen Goolsby, Attorney for the Society; Mr. Edward DeBolt, Society Consultant, and Ms. Carole Cones.

The Meeting was called to order by Dr. Wootton at 10:00 a.m. and an invocation was offered by Dr. Carmines. Special guests were then introduced by the President.

**Auxiliary**

Mrs. M. Pinson Neal, president of the Auxiliary, presented a most interesting progress report. The Auxiliary now numbers 2,056 members, of whom 2,015 also belong to the AMA Auxiliary. Many of the 22 component auxiliaries are busy with a wide variety of programs, including the presentation of seminars on such subjects as stress, family abuse, phobias, etc. A special "shape up for life" health program is being well received over the state.

Mrs. Neal reported that AMA-ERF checks have been received and will soon be presented to the deans of Virginia's three medical schools. She also stated that the Auxiliary is working with Dr. Hotchkiss and strongly supports his candidacy for reelection to the AMA Board of Trustees.

Council's attention was called to the fact that Virginia is well represented at the National level by Mrs. William Reardon, who holds the office of Eastern Regional vice president of the AMA Auxiliary.

**Professional Liability Program**

Mr. Goolsby reported that Society representatives recently journeyed to Minnesota to meet with St. Paul officials for the purpose of discussing a pro-

posed dividend plan designed to make the Society's Professional Liability program more attractive and acceptable to all participants. The plan is now in its final stages of completion and is considered quite unique in the insurance field. If it were in effect as presently constituted, it would result in a net premium savings of approximately 21%. The plan, among other things, would provide a mutually acceptable solution to the problem of over-reserving on the part of the carrier and would insure that the Society receives full credit. Mr. Goolsby indicated that another meeting with St. Paul officials will be held in Richmond at an early date and, from all indications, the proposed plan will soon become a reality.

**State Board of Medicine**

Dr. Alexander represented the Society at the most recent meeting of the State Board of Medicine and made a number of interesting observations. He pointed out that, although most physician members of the Board are those nominated by the Society, their primary allegiance is properly to the citizens of the Commonwealth. Dr. Alexander went on to say that, even though the Society and Board have long enjoyed a good working relationship, closer and more effective communications must be sought. This is particularly important where legislative matters are concerned.

Council was then advised that the Board is carefully considering an amendment to that portion of the Virginia code which currently prohibits podiatrists from performing amputations of the feet or toes.

**Travel Program**

Dr. Alexander reported that he has reviewed a number of travel proposals for 1982 and can find little variety. After taking all factors into consideration, he favors and recommends a mid-winter cruise between Acapulco and Los Angeles on the Pacific Princess. This is the vessel used in the "Love Boat" television series. Dr. Alexander also favors a cruise for the summer trip—this one also on the Pacific Princess and featuring a voyage from San Francisco to Alaska. Both trips would be administered by INTRAV and include air transportation to and from the ports involved.

A motion by Dr. Cook to approve Dr. Alexander's recommendations was seconded and adopted.

**Nurse Practitioner**

Dr. Cook stated that many physicians in Virginia are not aware of the fact that a true nurse practitioner must be certified in accordance with rules and regulations of the State Board of Nursing and State Board of Medicine. It is obvious that some nurse categories are making use of the title when they should not and that the matter needs clarification.

Dr. Cook expressed the opinion that the Society should endorse the certification procedure and inform the membership accordingly. He introduced a motion to this effect which was seconded and adopted.

Council was then advised that some confusion and misunderstanding seems to exist where the prescribing of drugs by nurses is concerned. Although a motion was introduced by Dr. Cook requesting that the matter be referred to the Committee on Pharmacy, there was a marked reluctance to become involved in a matter which already has the attention of the Board of Medicine.

A substitute motion was offered by Dr. Colletti directing that the matter be referred to the Legislative Committee for study and recommendation as to whether legislation is needed for the purpose of clarification. The motion was adopted.

**Student Meeting**

The Society has been requested to contribute to, and support, a joint meeting of students from Virginia's three medical schools. The meeting will be for the purpose of developing a closer working relationship between the three student groups and eliminate a lack of cohesion said to exist at this time. The meeting is scheduled to be held at Fort Story on May 23 and will be a picnic type affair. Another of its objectives is to encourage the establishment of a Student Medical Society at the Eastern Virginia School of Medicine.

A motion by Dr. Burton which would have the Society contribute an amount not to exceed $500 for support of the meeting was seconded and adopted.

Dr. McCune stated that plans to organize a Student Society at Eastern Virginia are well along and The Medical Society of Virginia will soon be contacted. He also stated that a special assembly will be held at the college on May 22 and that a representative of the Society will likely be requested to participate in the program.

**Search Committee**

Dr. Wootoon reported that a special Search Committee, headed by Dr. Raymond Brown, has submitted its final recommendations with reference to a successor to the retiring Executive Vice President. Mr. James L. Moore, currently an Administrative Assistant, has received the Committee's recommendation and Dr. Wootton stated that he is appointing

Mr. Moore Executive Vice President nominee. The Nominating Committee of the House will be so advised during the Annual Meeting in October.

**Boy Scout Jamboree**

Mr. Osburn reported that plans for the National Jamboree to be held at Camp A. P. Hill this summer are proceeding on schedule. Several component societies are working to obtain volunteer physicians and have already met with some success. The May issue of VIRGINIA MEDICAL will contain a special volunteer registration form which should prove quite helpful.

**VaMPAC**

Dr. Wootton and Mr. Douglas reported on recent VaMPAC activities, including its most recent meeting in Arlington. Those attending were guests at a reception hosted by Senator Warner and were also treated to a special tour of the Capitol and its facilities.

Council was advised that the next meeting of the VaMPAC Board will be held in June and candidate support will be the main topic of discussion and consideration. Members of Council were urged to make their thoughts and recommendations known to VaMPAC as soon as possible.

Mr. Douglas stated that VaMPAC membership continues to grow and that members of the "250 Club" will attend a luncheon at the Governor's Mansion on May 28. Hospitality suites will be provided by VaMPAC during the State Democratic Convention on May 29 and the State Republican Convention on June 5. Both conventions will be held at Virginia Beach.

**Congressional Luncheon**

Mr. DeBolt stated that Virginia's entire congressional delegation will attend the luncheon to be held in Washington on May 13. He reported that surveys sent to the various component societies have revealed some very interesting things. For example, HMOs have rather strong support in some areas but their federal funding is generally opposed. There are also many physicians who believe that some form of health planning must be carried on although federally controlled and funded HSAs are not popular. The PSRO concept is also generally supported but financial support by the Federal Government is not liked. The big question now is whether medicine can effectively fill the void when and if federal control and support of the various programs are eliminated.

**Proposed Commission on Planning**

Dr. Nipe informed Council that some members of the Virginia Hospital Association were working to fill the anticipated "void" in health planning by establishing a special Commission on Planning. Following considerable discussion, Dr. Nipe moved that the Hospital Association be advised of our interest and urged to set up a broadly based commission which would include equal representation and participation by The Medical Society of Virginia and industry. The motion was seconded and adopted.

The thought was expressed that the press should be advised of the Society's action. Mr. DeBolt indicated that a release would be prepared immediately.

It was also agreed that should a Commission on Planning be established, one of its main objectives would be that of serving the Governor where planning activities are concerned.

**AMA**

Dr. Puzak introduced Dr. Frank Jirka, member of the AMA Board of Trustees, who described and explained a proposed restructuring of AMA and its long and short range objectives. He made it clear that if the proposed plan is to be successful, it will require a dues increase of $35 in 1982 and additional step increases in 1983 and 1984.

Dr. Jirka covered both the primary and secondary functions of AMA and stated that effective representation of the membership was perhaps the most important. He stressed the importance of maintaining a strong AMA and cited many reasons for being a member. According to Dr. Jirka, every effort is now being made to reduce overhead costs and, at the same time, obtain new sources of income. Such an effort means the consolidation of many programs and the Board of Trustees will assume most long range planning responsibilities from this point on. Although the restructuring effort is considered a giant step in the right direction, the House of Delgates is expected to take a close look at many of the proposals. For example, some question was raised as to how AMA could get all of its work done should the Interim Session be eliminated.

**PSRO**

Dr. Robert Morton, chairman of the Liaison Committee to PSRO, discussed the status of the PSRO program in Virginia. He stated that if PSRO has accomplished nothing more, it has educated those physicians involved with it to the fact that there do exist problems which affect the efficient and effective delivery of health care services in Virginia hospitals.

The overall program has also proved beyond a doubt that physicians are cost conscious and anxious to do their part.

Dr. Morton went on to say that continued federal funding of PSRO activity is quite doubtful. Should this be the case, it is considered highly unlikely that those responsible for the various federal health programs, will be willing to see them continued without some sort of "watchdog" activity.

It was the consensus that Dr. Morton's status report was well done and should be available to the membership. A motion by Dr. Butler that it be published in an early issue of VIRGINIA MEDICAL was seconded and adopted. It was agreed that the Editor should be accorded the privilege of condensing the report should it appear advisable.

At this point Dr. Wootton presented Dr. Robert Keeley with a Certificate of Distinguished Service for his many contributions as chairman of the Virginia Professional Standards Review Foundation. It was through the efforts of Dr. Keeley and members of the foundation that the PSRO effort in Virginia is recognized as one of the most efficient in the nation.

**Vanguard**

Dr. Kuykendall reported that the Vanguard Committee had met the previous evening and considered a number of important matters. He stated that several component societies were interested in pursuing the program on cost containment as developed by Mr. DeBolt and subjected to a pilot study in Northern Virginia.

Dr. Kuykendall went on to say that Vanguard had given much consideration to the future of the National Health Service Corps and recommends that the Society support the effort currently under way to repeal NHS legislation. It was further recommended that the Virginia Council on Health and Medical Care—a privately financed organization widely recognized for its highly successful physician placement program—be used as a model for the nation. A motion by Dr. Cook to follow through on the recommendations was seconded.

Following considerable discussion as to what effect the elimination of the National Health Service Corps would have on federal assistance for medical students, it was agreed that the motion should include reference to the Virginia Student Assistance Program made possible through the State Department of Health and administered by the three medical schools. The motion was then adopted.

HMOs were then discussed quite thoroughly and it was agreed that the concept will likely remain with us for a long time. It was brought out that AMA would eliminate federal funding of HMOs. It was recommended that the Society support the AMA position and a motion to this effect was offered by Dr. Butler. It was seconded.

For purposes of clarification, a substitute motion was introduced by Dr. Fields which would support the official AMA action taken last December. AMA, at that time, reaffirmed its position—

> that approval of the concept of neutral public policy and fair market competition among all systems of health care delivery continue to be AMA policy, with the potential growth of HMOs being determined not by federal subsidy, preferential federal regulations, and federal advertising promotion, but by the number of people who prefer this mode of delivery.

The AMA House, looking ahead of repeal of health planning laws, also stated that HMOs should not, in the meantime, be exempted from equal application of those laws.

The substitute motion was adopted.

Next to be discussed was the National Health Planning Act (PL93–641). It was recommended by Vanguard that the Society support the AMA action calling for immediate cessation of funding and ultimate repeal of PL93–641 and PL96–79. The AMA action also called for the medical profession to accept responsibility and assume a position of leadership in the development of principles for a program of voluntary, locally based health planning. A motion supporting the AMA action was offered by Dr. Crowder and adopted.

Dr. Kuykendall reported on administration plans to phase out the PSRO program over a specified period of time. It was brought out that AMA also seeks repeal of the PSRO program. It was recommended at this point that the Society either reaffirm its previous actions on PSRO or take no action at all at this time.

It was then moved by Dr. Burton that the following action by the AMA House of Delegates be supported:

> The current Association policy shall be to continue professionally directed efforts to ensure that care provided to patients is of high quality, appropriate duration, and is rendered in an appropriate setting at a reasonable cost and to encourage the elimination of all government directed peer review programs including PSRO.

The motion was seconded and adopted with two negative votes recorded.

The Stockman–Gephardt Reform Act of 1980 was then discussed and Dr. Kuykendall indicated that Vanguard would conduct a detailed study of the Bill and recommend constructive amendments. It was noted that AMA is following a similar course of action.

Council's attention was called to the fact that Vanguard no longer has an Executive Secretary and that it might be necessary to obtain needed assistance from another source.

It was at this point that Dr. McCune reported on a cost containment project being carried on by the Norfolk Academy of Medicine. The project features video tapes obtained from the Washington State Medical Society Auxiliary and pamphlets to be used in Norfolk City Schools and physicians' offices. The academy had inquired as to whether Vanguard, or other Society funds, might be available for use in such a project. Approximately $500-750 is needed as soon as possible.

It was pointed out that The Medical Society of Virginia has not yet determined whether it can make funds available to component societies wishing to adopt and promote the pilot project, or similar programs, in their areas. Consequently, a motion by Dr. McCune to appropriate $500 for the Norfolk project was lost.

**Public Relations**

Dr. McCune expressed hope that Council would direct the Public Relations Committee to move ahead with its plans to develop an effective coalition of medicine and industry. He stated that the time is right and that the project should receive top priority.

Dr. McCune also commented on the improved press coverage during the 1980 Annual Meeting at Williamsburg. It was by far the best coverage of recent years and it is hoped that coverage for the 1981 meeting will be even better. The public relations aspects of the upcoming Boy Scout Jamboree were mentioned once again and hope was expressed that physicians will give it the support it truly deserves.

**Membership**

Dr. Crowder reported on behalf of his Membership Committee and presented some very interesting figures. Council was pleased to learn that membership in AMA continues to grow—there being approximately 200 members more than at this same time last year. Society membership also continues to increase with 92 new members already this year. Of particular interest was the fact that the Society has approximately 1,000 non-dues paying members. Over 600 of this group are retired or over age 70 and the number in this category continues to grow.

Council was then advised that if credit for the total number of student members is to be obtained from AMA, a change in the Articles of Incorporation will be required. This is because student members do not, at this time, have the right to vote, hold office, or serve on standing committees. An amendment to the Articles has been suggested by Mr. Goolsby which would extend these rights to student members.

A motion to approve the proposed amendment and submit it to the Bylaws Committee was seconded and adopted.

Dr. Crowder then discussed the matter of resident membership and the advisability of establishing a statewide resident component society. He stated that although residents currently can join The Medical Society of Virginia as a result of belonging to component societies, other alternatives should perhaps be considered. It was agreed that a resident component society was a very complex issue with many problems. It was the Membership Committee's recommendation that component societies be contacted concerning resident membership and participation and their thoughts be reported to Council at its next meeting. It was brought out during the discussion that the Albemarle County Medical Society has been unusually successful in attracting resident membership and participation and its structure and operation certainly deserve close study.

**Commissioner Mental Health/Retardation**

Dr. Shield stated that Dr. Leo Kirven, commissioner of Mental Health and Mental Retardation, will, in all likelihood, be leaving that office in July. Should this be the case, it is considered most important that another physician be appointed as his successor.

It was moved by Dr. Caravati that the governor be contacted as soon as possible and urged to appoint a physician to succeed the present commissioner of Mental Health and Mental Retardation should he retire from that office. The motion was seconded and adopted. It was also recommended that all physicians be encouraged to make their thoughts known to the governor.

**Special Foundation**

When Council met in January, it authorized Dr. Wootton to proceed with his wish to establish a special foundation for the purpose of receiving tax deductible contributions and gifts. Mr. Goolsby stated that he had looked into the matter and that the cost involved in setting up such a foundation would be approximately $1,000.

It was brought out during discussion that the Virginia Professional Standards Review Foundation still exists officially although it has been inactive for several years. It was agreed that Mr. Goolsby would look into the possibility of utilizing this foundation and that no further action will be taken until his thoughts and recommendations can be brought back to Council.

**Standards of Principles**

Mr. Goolsby advised that the Virginia State Bar had adopted one minor amendment to the *Principles of Cooperation for Physicians and Attorneys* after that document was approved by the House of Delegates last November. The change relates to the patient's right to claim the physician-patient privilege when a law suit has been filed in which the physical or mental condition of the patient is at issue. The amended section of Privilege provides that the physician-patient privilege no longer is available to the patient under Virginia law when the patient's health is at issue. Therefore, the physician has the discretion to confer with counsel for the other side if he so chooses.

After discussion of the amendment, on motion duly made and seconded, the *Principles of Cooperation for Physicians and Attorneys in the Commonwealth of Virginia*, as adopted by the Virginia State Bar, was approved.

**Committees**

Dr. Alexander informed Council that he will soon be seeking its advice and guidance on committee appointments for next year. He will, in all likelihood, be writing each of them at the appropriate time.

**Speakers' Bureau**

Dr. Wootton reported that he has written each component society concerning the development of speakers' bureaus and provided them with detailed information on the subject. This is an excellent PR project and its potential is almost unlimited.

There being no further business, the meeting was adjourned.

Robert I. Howard, Secretary

APPROVED:
**Percy Wootton, M.D., President**


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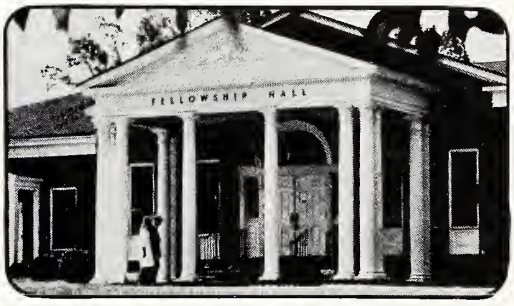

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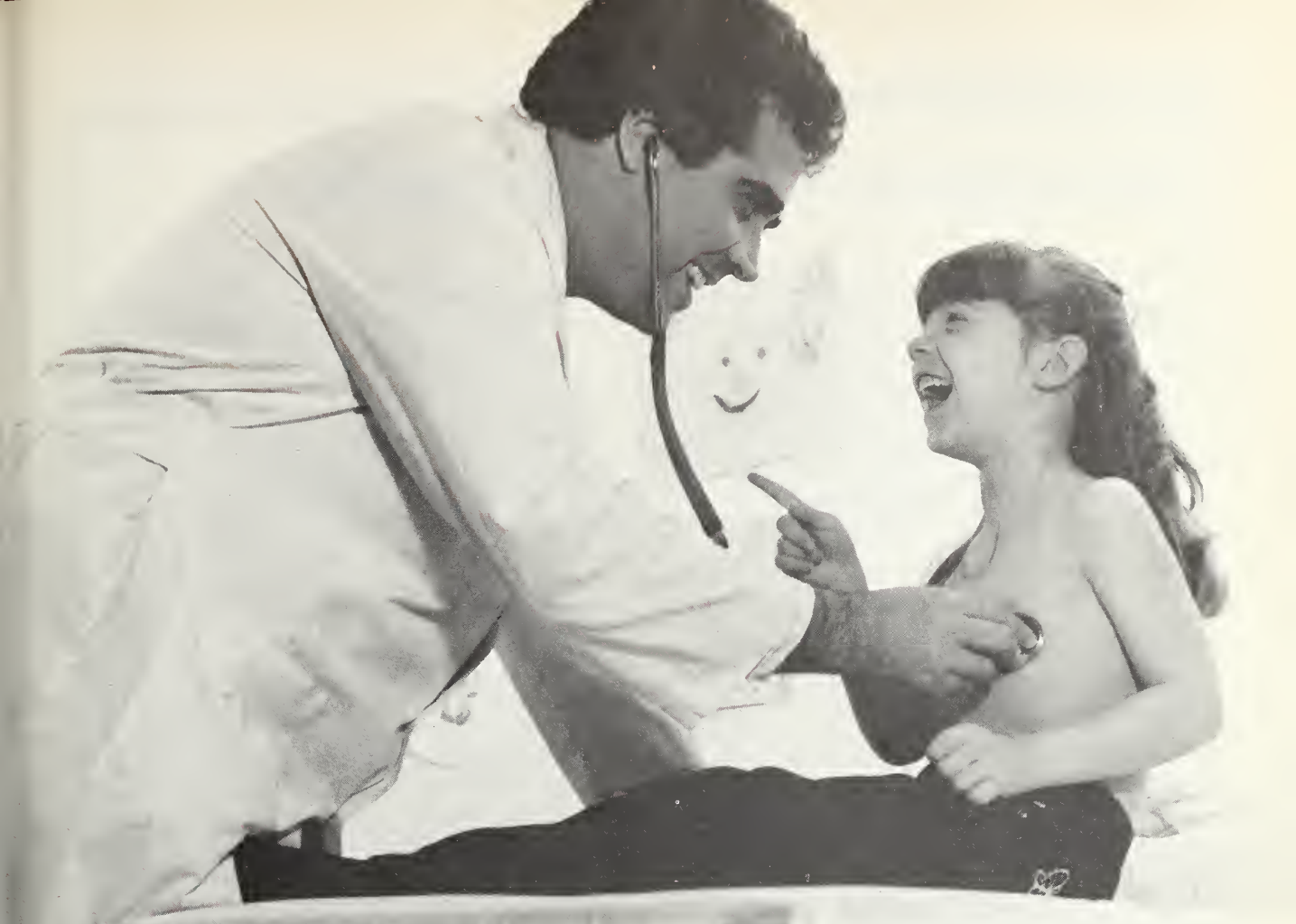

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# "Practicing by the seat of their pants"

ABOUT forty or fifty years ago, airline passenger travel was just becoming popular. Many of the most experienced pilots were free-thinking, independent individuals who had been used to "flying by the seat of their pants." That is, they used their experience and judgment to decide when, where and how to fly. When airlines began to establish certain guidelines, they were vigorously opposed by many of these veteran pilots. When the Federal Aeronautics Administration became involved, there was even more resentment. After all, how could some bureaucrat in Washington make rules to tell an experienced pilot how to fly his plane? How could the FAA anticipate the flying conditions, or at what altitude the plane would best perform, or when the visibility was not good enough in certain locations? How could the FAA tell an experienced pilot what to do in emergencies and so forth? We all know what has happened since the 1930s with airline passenger travel. Not only is air travel safer and relatively less expensive, but recently the Airline Pilots Association themselves have been insisting on more stringent rules and regulations.

While health care delivery is much different from airline travel, an analogy can be drawn. There are veteran and experienced physicians and entire hospitals who practice "by the seat of their pants." They resent any rules or guidelines that interfere with their practices, which are based on their individual knowledge and experience. They don't want anyone dictating to them when, on whom, or how they perform certain procedures. They don't want any rules to guide their hospital use or when, where and how to use certain drugs and medications. These are usually experienced, competent, conscientious physicians—similar to the experienced pilots who resented having to follow guidelines and rules. Someone has called practicing medicine by guidelines "cookbook medicine", and many, if not most physicians, seem to be opposed to it. Since most good chefs and cooks use cookbooks and recipes, is "cookbook medicine" really all that bad? It doesn't prevent doctors from giving their personal touches.

Don't we feel more comfortable because of the standardized procedures, regular inspection, examination and maintenance which regulations require for both plane and pilot? Do we want pilots who "fly by the seat of their pants?" By the same token, do we prefer physicians or hospitals who practice "by the seat of their pants," especially if the patient does not have some expertise in choosing a physician or hospital? We are about where the airlines were forty years ago, and if we have enough foresight we can do for the medical profession what the FAA has done for the airlines. Through physician-controlled PSROs, we can make our own rules, regulations and guidelines without governmental control. Now that federal funding is being cut back, we have an even greater opportunity to do it ourselves. It has come to my personal knowledge as well as to the knowledge of many of the physicians working on assessment teams in the hospitals in Virginia, that there are indeed physicians and hospitals "practicing by the seat of their pants." There are hospitals and physicians in Virginia who deviate so far from the acceptable practice that they need not only education but also guidelines and regulations to follow.

Should the medical profession be concerned with these problems? Should physicians try to minimize and decrease significant aberrant practice? Peer review is the best method of attack, and PSROs are the physician-controlled peer review organizations.

GEORGE R. SMITH, JR., MD

The author is medical director of the Area III Southwest Virginia Professional Standards Review Organization. Address correspondence to him at the Alleghany Clinic, Shawsville VA 24162.

# "Best method of attack: peer review"

# "PSRO is not a government agency. It is the medical profession."

Robert A. Morton, MD, *Norfolk, Virginia*

THIS report to the Council and the membership of The Medical Society of Virginia is intended to keep the medical profession of the state informed and updated on the Professional Standards Review Organization program.

If PSRO has done nothing else, it has educated those physicians involved in it to the fact that there are problems with the efficient and effective delivery of health care services in the hospitals in the state. Not all of these problems are due to patient demand, and certainly not all are due to physician activity. Many problems exist within hospitals that tend to prevent physicians from moving their patients through a system efficiently. These problems are not correctable by issuing letters or by denying payment for services that patients really need. High quality and efficient medical care can be achieved only through an educational process which ultimately must involve all physicians and hospital administrators. The PSROs are in the unique position of being able to collect, analyze and display information which not only displays how well an institution may provide medical services but also shows by comparative data what is really achievable in terms of efficiency and quality.

The PSRO program in Virginia started in 1974, when The Medical Society of Virginia was instrumental in starting the Virginia Professional Standards Review Foundation, a state support center whose purpose was to assist local physicians in starting up a PSRO in each of the five areas of the state. These five PSROs are all alive and well. Actual PSRO review began in March, 1977, when three hospitals in the Eastern portion of the state were delegated full responsibility for conducting PSRO review. In a piecemeal fashion, PSRO review was extended to all hopsitals in the state over the next two years. Currently, all 124 hospitals in Virginia are incorporated into the PSRO system. Of the 124 hospitals, only 13 have nondelegated or partially-delegated review. Thus, 90% of Virginia hospitals conduct their own peer review, but it is done in a systematized, organized process that allows for comparative analyses of institutional performance. All five PSROs have established mechanisms for feeding comparative data to the hospitals for use in self-correction activities.

As PSRO review started and gained momentum, there was a universal decrease in utilization, as measured by average length of stay figures in each PSRO area. It is interesting to note that by 1980 these figures are stabilizing with little further decrease demonstrable or expected. As a result, PSROs are now moving to phase out utilization review in those hospitals where there is little likelihood of further impact on bed utilization. Fourteen Virginia hospitals will not be required to perform any utilization review after mid-1981, and all other hospitals are performing review only on a focused basis, that is, focused on problem areas rather than review of all federally-funded admissions, as was done in earlier years. One should expect further decreases in utilization review activity as the PSROs gain confidence that it is no longer needed.

Dr. Morton is chairman of the Medical Society of Virginia's Liaison Committee to PSRO and in that capacity presented this report at the meeting of Council on April 24, 1981, in Richmond. Address correspondence to him at 915 Hampton Boulevard, Norfolk VA 23507.

There are about 8,190 physicians practicing medicine in Virginia; 51% of these are members of a PSRO. Ninety-nine physicians serve on the governing boards of PSROs, and without exception these doctors are generally recognized as leaders in their medical communities. Over 300 additional physicians serve on committees established by the PSROs to assist these boards in the development and oversight of this peer review system. More importantly, hundreds of additional physicians actually conduct review in their local hospitals. All of these physicians constitute the Professional Standards Review Organization. They determine what the standards of care are and whether compliance is satisfactory or not. The PSRO simply is not a governmental agency, though it does receive government money. PSRO is the medical profession. This physician effort, whether at the board level or at the hospital level, is voluntary and is inadequately compensated at best.

All five PSROs are conducting areawide or multihospital quality-of-patient-care studies, consisting of retrospective medical audits. Forty-one multi-hospital studies have been completed to date in Virginia. This activity is increasing in scope and sophistication as experience is gained. One Virginia PSRO has been the instigator of nationwide multi-PSRO audits. The first involved eight PSROs studying cesarean section, and the second, currently underway, involves 30 PSROs studying the patterns of IPPB utilization. This latter study was designed and is being coordinated by one of our PSROs and involves over 500 hospitals and over 21,000 patients. Another Virginia PSRO is developing plans to do a joint study with other PSROs in the country in an attempt to ascertain the reasons for differing average length of stay figures in different parts of the country. Studies of such geographic spread and such magnitude are possible only because the PSRO network exists. Only when a hospital can see its patterns of patient care displayed in light of its peer institutions can it determine what patterns are desireable and what is really achievable.

One might think PSRO is big business when one considers that the Virginia PSROs spent about 2.4 million dollars in 1980 to collect and analyze data, conduct non-delegated review, monitor delegated review, conduct review in skilled nursing facilities, pay their own overhead costs and pay for a few special initiative projects. Add to this the $1.2 million paid directly to hospitals for delegated review costs, and the total cost for PSRO review in Virginia comes to about $3.6 million. About 269,000 patients are subject annually to PSRO review. Medicare is currently reimbursing hospitals an average of $240 per patient day and Medicaid is averaging $156 per patient day in hospital payments. Medicare pays hospitals in Virginia about $547.9 million annually, and Medicaid pays $77.5 million, for a total of $625.4 million. The total cost PSRO activities is only 0.58% of this figure.

The Virginia Statewide Professional Standards Review Council has had severe cutbacks in its funding and has been drastically restricted in its activities by federal order, as well as by lack of funds. It is clearly the intent of the government to use whatever funds are available to the PSRO program in support of functioning PSROs rather than on any superstructure. Though the Statewide Council has played a role in the appeals of adverse decisions and the coordination of PSRO activities, these functions are probably not vital to the program. The Statewide Council has felt that it could play an important role in the dissemination of PSRO information to the continuing education programs of the state, and steps toward this end were to be initiated. If the Statewide Council does not survive budget cuts, or cannot adequately function, it is sincerely hoped that the five PSROs can work cooperatively with The Medical Society of Virginia in feeding relevant patient care information into the continuing medical education programs within the state.

The Statewide Council, in conjunction with West Virginia and the five Virginia PSROs, developed a proposal for a common hospital data system for the two states. The intent is to start by collecting patient care data only on federally-funded patients, as is now done by each PSRO. However, it is felt that in order to prevent expensive duplicative efforts on the part of the hospitals, this data system could be expanded to serve all hospital data needs by including data from all pay-source patients. The physicians involved in the development of this proposal feel strongly that only physicians can assure that sensitive patient care data is kept confidential and at the same time serve the needs of individual institutions, planning agencies and various state and governmental agencies. The track record of the PSROs in handling confidential data is totally and completely unblemished. To my knowledge there is not a single instance of breach of confidentiality by a PSRO. The purpose of collecting patient care information is solely to improve patient care, and this includes a concern for the expense of that care. Only physicians can make proper judgements relative to quality and cost issues as they relate to patient benefits.

The proposal for physicians to control a data consortium was totally opposed by the Virginia Hospital Association, even though the original proposal has been modified to give hospital administrators equal representation with physicians on the governing board. It would appear that the hospital administra-

tors continue to oppose physician activity in data gathering and analysis, so much so that the Virginia Hospital Association has developed its own proposal for a data consortium of all Virginia hospitals. The administrators were quick to see the advantages of a single data system supplying information to the many agencies who need statistical data, but so far they do not seem to be inclined to have physician organizations involved in their data consortium. It should concern physicians that the VHA data proposal will simply be a replacement for PAS or other data systems in which the only information and conclusions a hospital medical staff sees is related to their own institution and possibly only what their hospital administrator wishes them to see.

The VHA data proposal calls for private funding, which is a laudable effort but not too surprising in light of the fact that hospitals are already purchasing data services. The physician proposal having no other source of funding, has been submitted to DHHS and is awaiting a decision on federal funding, which will be some months in coming. Ideally the veils of suspicion and mistrust need to be torn apart. Physicians and administrators seem to work together at the hospital level, so why not try it on a statewide basis? The concern is that there will be a retreat to only intramural quality assurance activities, a backwards step which promotes self-justification of inappropriate or inefficient patterns of care within each hospital. It is hoped that The Medical Society of Virginia could use its influence with the VHA to see that the gains of the PSRO comparative analysis processes are perpetuated and that physicians are included in the management of a data consortium.

Continued federal funding of PSRO activity is somewhat doubtful at this point. The current administration proposes to phase out funding of PSROs, suggesting that the private-sector, third-party payors may begin to pick up the cost of peer review or the states may wish to purchase review from a block grant program for health care. Since the federal government is the largest single purchaser of health care and will remain so because of its entitlement programs, it is not likely that other third-party purchasers of health care will be willing to support PSROs sufficiently for them to look after the government's interest. In spite of the administration's proposal, there are many in Congress and within the administration who are not happy with the idea of turning loose a $60+ billion annual expenditure without some sort of watchdog activity. Cost containment without concern for quality of patient care can and probably will be achieved without physician involvement when PSROs no longer exist. Retroactive review by fiscal agents for payment decision is still the law of the land where a PSRO does not exist.

To preserve and, it is hoped, to improve the quality of medical care while watching for unnecessary spending is logically and morally a physician's task. That is what PSRO is all about. That is also the AMA position in its call for PSRO elimination. But the AMA, though strong on principle and good intentions, lacks the process, the system and the teeth to make its principle work.

To summarize, Virginia's PSROs are effectively carrying out their mandate to assure the government that money spent on the Medicare and Medicaid programs is appropriately spent. Now that each PSRO has gained three for four years of experience, greater emphasis is being seen on the studies of patterns of care rather than review of individual patient utilization of health resources. The cost of this quality assurance activity is quite reasonable when viewed in terms of the enormous quantities of money spent for health care. The Virginia Statewide Council is not likely to continue its functioning, probably because it is not really necessary. It certainly appears that hospital administrators have reservations about allowing physicians to control an effective and efficient patient care data system. The old Virginia Professional Standards Review Foundation, which helped each PSRO get started, had a saying, "Whoever controls the data, controls the practice of medicine." That statement is as accurate today as it was seven years ago. There are many politicians, bureaucrats, administrators and clerks who can analyze data and claim forms and can reach decisions about how medicine should be practiced.

The government's plans for the future of the PSRO are not totally formulated yet, but if this program is ended, those physicians who have been active in PSRO can look their friends and associates in the eye and say, "We held them off for five years. With a little more help we could probably have held them for ten."

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**Use in ambulatory patients**: Empirin with Codeine may impair the mental and/or physical abilities required for the performance of potentially hazardous tasks such as driving a car or operating machinery. The patient using this drug should be cautioned accordingly.

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**Use in pregnancy**: Safe use in pregnancy has not been established relative to possible adverse effects on fetal development. Therefore, Empirin with Codeine should not be used in pregnant women unless, in the judgment of the physician, the potential benefits outweigh the possible hazards.

**PRECAUTIONS**:

**Head injury and increased intracranial pressure**: The respiratory depressant effects of narcotics and their capacity to elevate cerebrospinal fluid pressure may be markedly exaggerated in the presence of head injury, other intracranial lesions or a pre-existing increase in intracranial pressure. Furthermore, narcotics produce adverse reactions which may obscure the clinical course of patients with head injuries.

**Acute abdominal conditions**: The administration of Empirin with Codeine or other narcotics may obscure the diagnosis or clinical course in patients with acute abdominal conditions.

**Allergic**: Precautions should be taken in administering salicylates to persons with known allergies; patients with nasal polyps are more likely to be hypersensitive to aspirin.

**Special risk patients**: Empirin with Codeine should be given with caution to certain patients such as the elderly or debilitated, and those with severe impairment of hepatic or renal function, hypothyroidism, Addison's disease, prostatic hypertrophy or urethral stricture, peptic ulcer, or coagulation disorders.

**ADVERSE REACTIONS**: The most frequently observed adverse reactions to codeine include light-headedness, dizziness, sedation, nausea and vomiting. These effects seem to be more prominent in ambulatory than in nonambulatory patients and some of these adverse reactions may be alleviated if the patient lies down. Other adverse reactions include euphoria, dysphoria, constipation, and pruritus.

The most frequently observed reactions to aspirin include headache, vertigo, ringing in the ears, mental confusion, drowsiness, sweating, thirst, nausea, and vomiting. Occasional patients experience gastric irritation and bleeding with aspirin. Some patients are unable to take salicylates without developing nausea and vomiting. Hypersensitivity may be manifested by a skin rash or even an anaphylactic reaction. With these exceptions, most of the side effects occur after repeated administration of large doses.

**DOSAGE AND ADMINISTRATION**: Dosage should be adjusted according to the severity of the pain and the response of the patient. It may occasionally be necessary to exceed the usual dosage recommended below in cases of more severe pain or in those patients who have become tolerant to the analgesic effect of narcotics. Empirin with Codeine is given orally. The usual adult dose for Empirin with Codeine No. 2 and No. 3 is one or two tablets every four hours as required. The usual adult dose for Empirin with Codeine No. 4 is one tablet every four hours as required.

**DRUG INTERACTIONS**: The CNS depressant effects of Empirin with Codeine may be additive with that of other CNS depressants. See WARNINGS.

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VIRGINIA MEDICAL

EDITORIAL

# A Misnamed Disease Brings Tragedy to Virginia

JUST when Virginia appeared to be reducing the morbidity and mortality from Rocky Mountain spotted fever, a tragic reversal occurred. A previously healthy child, admitted recently to the Medical College of Virginia Hospitals with undiagnosed Rocky Mountain spotted fever, died suddenly from a well-known complication of this disease, myocarditis.

"Rocky Mountain spotted fever" is a terrible misnomer. The Centers for Disease Control reviewed the disease's rate of occurrence by states during 1975-1977 and found that not one Rocky Mountain state was among the top 20—but North Carolina and Virginia led the list! The misnomer almost certainly has been responsible for any number of deaths by engendering indifference or ignorance in the public mind and among physicians. Why should anyone in Virginia be concerned about a fever whose name indicates it occurs in the Rocky Mountains? The public and the medical profession in Virginia would be served best if the disease was called "tick-borne fever" or "spotted fever." The former, "tick-borne fever", may be preferred because the disease comes and goes with the appearance of ticks between early spring and fall, a useful clue upon which to suspect the diagnosis.

Can this disease and its associated tragedies be prevented? Or is the situation hopeless, since ticks serve as a reservoir for infecting rickettsia and so cannot be destroyed without destroying ourselves? Yes, Virginia, there is a solution: Education. 1) The public must be made aware of the disease and informed about ticks: how to identify, remove and avoid them. 2) Physicians must be alerted to the disease, especially how to recognize it clinically. In a recent study of the mortality of the disease, the difference between life and death usually was not how soon the patient got to a physician, but how soon the physician made the correct diagnosis and started appropriate therapy.

"Tick-borne fever" is eminently curable if diagnosed early. All too often physicians depend on the presence of a "typical" rash; when the rash appears, however, the disease is in its late stages. In Virginia the diagnosis should be strongly considered in anyone who between the months of March and September develops fever, headache and myalgias lasting for three days or more. The physician should not require a history of tick bite for the diagnosis, since the bite is an anesthetic event; a history of tick exposure is enough, and with so many ticks in Virginia, a history of living in the Old Dominion is sufficient.

Similarly, one cannot wait upon the results of serology tests before making the diagnosis. The serology may convert late or not at all. With the constellation of symptoms and the conditions described above, the physician would be wise to treat early and confirm the diagnosis later.

"Think of the disease and treat early." That should be our motto. Come on Virginia, no more reversals! No more tragedies!

RICHARD J. DUMA, MD

Box 49, MCV Station
Richmond VA 23298

# VIRGINIA MEDICAL OBITUARY

## William H. Woodson, Sr., MD

Dr. William Hart Woodson, Sr., former chief of staff at Riverside Hospital in Newport News, died April 12 at the age of 66.

A lifelong Newport News resident, Dr. Woodson was graduated from the College of William and Mary, earned his medical degree from the Medical College of Virginia and underwent training at the University of Louisville Hospital in Louisville, Kentucky. Specializing in general surgery, he served as a surgeon in the Navy during World War II. Dr. Woodson retired last year as an attending surgeon at Riverside Hospital.

A member of The Medical Society of Virginia for 36 years, he also belonged to the Newport News Medical Society and was a fellow of the American College of Surgeons.

## Joseph B. Jones, MD

Dr. Joseph Bernard Jones, general practitioner in Culpeper and former president of the Culpeper Memorial Hospital staff, died April 23. He was 76.

A longtime resident of Virginia, Dr. Jones was graduated from Randolph-Macon College and then earned his medical degree from the Medical College of Virginia. He was a major in the Army during World War II and was a member of the Veterans of Foreign Wars and the American Legion. In the 1930s he was district medical officer supervising the Civilian Conservation Corps camps in Northern Virginia.

Long a member of the Culpeper Medical Society, Dr. Jones became a member of The Medical Society of Virginia 43 years ago. He belonged also to the American Academy of Family Physicians.

## M. A. Johnson, III, MD

Dr. Marcellus A. Johnson, III, general surgeon in Roanoke, died May 1 at the age of 63. He was a graduate of the University of Virginia School of Medicine, underwent training at Virginia Mason Hospital in Washington state, and then served in the US Army during World War II.

Dr. Johnson was a longtime member of both The Medical Society of Virginia and the Roanoke Academy of Medicine and belonged also to the American College of Chest Physicians, American Thoracic Society, American Society of Abdominal Surgeons and American College of Surgeons.

## Eugene P. Southall, MD

Dr. Eugene P. Southall, Norfolk radiologist, died November 25, 1980, at the age of 49.

Dr. Southall earned his medical degree from Howard University in Washington, trained at Menorah Medical Center in Missouri and at Reynolds Memorial Hospital in North Carolina, and then served in the US Air Force during the late 1950s.

He came to The Medical Society of Virginia through the Norfolk Academy of Medicine in 1974 and belonged also to the American College of Radiology and Society of Nuclear Medicine.

## Edgar Clay Harper, MD

Dr. Edgar Clay Harper, former director of tuberculosis field services for the Virginia Department of Health, died May 25 in Pulaski at the age of 88.

A graduate of Emory and Henry College, Dr. Harper received his medical degree in 1916 from the Medical College of Virginia and then studied public health at Johns Hopkins University. For many years he lived in Richmond, helping establish Southwestern Virginia regional offices for the Department of Health in the 1930s, serving as director of the state Crippled Children's Bureau, and, beginning in 1946, becoming tuberculosis control officer at McGuire Veterans Hospital. He later transferred to the VA center at Mountain Home, Tennessee, where he was chief medical officer, and retired to Pulaski in 1972.

Dr. Harper had been a Medical Society of Virginia member for 58 years and belonged also to the Richmond Academy of Medicine, the American College of Preventive Medicine, and the American Medical Association.

## Charles R. Robins, Jr., MD

Dr. Charles R. Robins, Jr., who practiced surgery in Richmond for many years before retiring to Kilmarnock in 1972, died May 18 in a Kilmarnock hospital. He was 75.

Son of one of the founders of Stuart Circle Hospital, Richmond, Dr. Robins was graduated from the University of Virginia, earned his medical degree at

the Medical College of Virginia, and then trained at the Mayo Clinic in Rochester. Following his father, he joined the Stuart Circle Hospital staff in 1935. During World War II he was with the 45th General Hospital in North Africa.

Dr. Robins was a long-time member of The Medical Society of Virginia and the Richmond Academy of Medicine and on moving to Kilmarnock was given membership in the Northern Neck Medical Association.

# Memoir of E. M. W. Stuart 1927-1981

*By J. Howard Clark, MD*

Edward Miller Wilson Stuart, MD, died on January 30. He was with us in the Roanoke Valley only five years, yet how well we will recall what a resolute, openhearted, courageous man he was.

Ted was born in Douglas, Isle of Man, in the British Isles. He completed his premedical and medical education at the Queens University in Belfast, North Ireland, and for a brief time was a family doctor at the Nobles Hospital in Douglas. He completed his obstetrics and gynecology residency at Winnepeg in 1956. He was a member of the Royal College of Physicians and Surgeons of Canada and of the American College of Obstetrics and Gynecology.

In 1961 the Stuarts moved to Welland, Ontario where he established a private practice in obstetrics and gynecology for the next 14 years. To the disappointment of his Canadian friends he and his family moved to Roanoke in July of 1976, attracted by this opportunity to devote all his time to teaching. He was appointed Associate Director of Obstetric and Gynecologic Education at the Roanoke Memorial Hospitals. His enthusiasm and energy soon won him many friends among his students and contemporaries.

Only two years later Dr. Stuart was visited with the first manifestations of a devastating and unrelenting illness. His physicians gave him no hope for a cure and almost no hope that he could survive beyond a brief interval. Dr. Stuart met this awful challenge with not a whisper of self concern and with a determination to remain active in the profession he loved so well. Within the slowly diminishing limits of his strength that is exactly what he did for the three years that followed.

He is survived by his wife, Angela, and four children, Gavin, Patricia, Glenn and Deirdre. Dr. Gavin Stuart is a fellow in gynecologic oncology and will surely honor the memory of his father. We shall all be honored by Ted's courage and his unflagging dedication to the profession of medicine.

Prepared and published at the request of the Roanoke Academy of Medicine.

# Memoir of J. Phillip Jones, MD 1900-1980

*By T.B. Washington, MD, William R. Hill, MD, William R. Jones, MD, and Thomas W. Murrell, Jr., MD*

J. Philip Jones, MD, was born in Richmond on June 29, 1900, the son of Emelia Graham Jones and James Philip Jones.

He graduated from John Marshall High School in 1919, attended Randolph Macon College and graduated from the Medical College of Virginia in 1926. Following an internship at MCV, he began the general practice of medicine on the south side of Richmond, which he continued for 47 years. He retired from practice in 1972 and died November 18, 1979. For many years he was a member of the board of directors of Grace Hospital, a member of the Richmond Academy of Medicine, the Medical Society of Virginia, the American Medical Association, the Manchester Medical Society and the Commonwealth Club. He worshiped at Berryman Methodist Church.

We believe there may have been men like Philip Jones somewhere in the world in years past, but if there were, we suspect that there have been very few. He believed that every day—perhaps every waking hour—should have some humor to enjoy, and he did a great deal to provide it. At the same time, he combined this zest for life with a dedication to and enjoyment of the practice of medicine. While this brightness and humor persisted, even when caring for patients who were terminal, some people might have questioned his empathy for human suffering and familial bereavement. The truth was that, if anything, he was more deeply affected than even some of his closest friends realized.

For many years a part of his practice was devoted to uncomplicated obstetrics. He used to whimsically say that if anybody doubted his expertise in this field of medicine they should review the career of Francis Tarkington, perhaps the best quarterback ever to play professional football, who was delivered by Dr. Jones in a Richmond hospital.

As a physician, one of Dr. Jones' finest qualities was his desire that his patients receive the best treatment possible and he believed that the smartest doctors are those who know when consultation with oth-

ers is indicated. The consultants who worked with him always enjoyed the experience, particularly since they frequently learned something from Dr. Jones in the process.

He had a great love for hunting and fishing and those who were privileged to participate in these sports with him will not soon forget the pleasure of his company.

Perhaps the best evidence of a fine professional life in the practice of medicine is what patients have to say about a deceased physician. Since his retirement and death so many of us have heard his patients say, "There will never be another Phil Jones—I will miss him as long as I live."

He is survived by his wife, Helen Hickerson Jones, a son, Robert G. Jones, a daughter, Mrs. Carol Hudgens, two sisters and seven grandchildren.

Prepared and published at the request of the Richmond Academy of Medicine.

# Memoir of Kenneth J. Cherry 1915-1980

*By O.T. Graham, MD, John A. Rawls, MD, and Charles W. Byrd, MD*

Dr. Kenneth Jerome Cherry died suddenly of a heart attack on July 10, 1980. He was born in Richmond, August 7, 1915, and spent his entire life here, acquiring a host of devoted friends.

After graduating from the University of Richmond, Buck, as he was fondly known, enrolled in the Medical College of Virginia, where he earned his Doctor of Medicine degree. He then entered the surgical training program at MCV.

This was soon interrupted by the call to military service during World War II. From 1942 to 1946 Dr. Cherry served with the 45th General Hospital, both in this country and in Europe. He was discharged from the army with the rank of captain.

On his return to civilian life, Buck resumed his training in general surgery under the late Dr. I. A. Bigger, who had a profound and lasting effect on both his professional and personal life. During this time Dr. Cherry served as part-time coroner to augment his meager resident's salary.

Choosing to remain in Richmond after completing his training, Dr. Cherry entered the private practice of surgery here. For many years he maintained an office at 1815 Monument Avenue. He was a member of the staff of Retreat Hospital and served for a time as chief of surgery and later as president of the medical staff there. He was also on the staff of Richmond Memorial, Stuart Circle and St. Mary's Hospitals. An interested and dedicated teacher, he held the title of Assistant Clinical Professor of Surgery at MCV. For many years he was an attending surgeon at McGuire Veterans Hospital, where he unselfishly shared his knowledge and talents with the resident staff.

Dr. Cherry was a diplomate of the American Board of Surgery and a fellow of the American College of Surgeons. He was a member of many professional societies, including the Richmond Academy of Medicine, The Medical Society of Virginia, the American Medical Association, Richmond Surgical and Gynecological Society, Virginia Surgical Society and the Southeastern Surgical Congress.

He was also a member of the St. James Episcopal Church, Virginia Historical Society, the English Speaking League, the Military Order of World Wars and the Caduceus Club.

Buck was a man of many talents. He was a hunter, a fisherman, a lover of classical music, a voracious reader. One had only to see his lawn and garden to recognize his ability as a gardener.

His main interest was people—his family, his patients, and his friends. He was never too busy to listen with a sympathetic ear and to offer an encouraging and cheerful word. He was ever ready with an entertaining story.

He is survived by his wife, Mrs. Alice Cottingham Cherry, and two sons, Dr. Kenneth J. Cherry, Jr., of San Francisco and George C. Cherry of Richmond.

Loved by his friends, adored by his patients and respected by his colleagues, Buck will be sorely missed by us all. His loss leaves a void in the community that will be difficult to fill.

Prepared and published at the request of the Richmond Academy of Medicine.

# Memoir of L. J. Comeaux, Jr. 1944-1980

*By Albert B. Finch, MD, Gervas S. Taylor, MD, and Curtis V. Spear, Jr., MD*

It is with great sadness that we recognize the death of Lionel J. Comeaux, Jr., who died December 14, 1980 as a result of an airplane accident.

Lionel was born on January 6, 1944, in Lafayette, Louisiana, the only son of Lionel and Amy Comeaux. He graduated from the University of Southwestern Louisiana and the Louisiana State University School of Medicine. He interned at Charity

Hospital and had his orthopedic residency at the Tulane University Medical School. He served eight years in the Naval Reserve and had two years of active duty with the US Naval Medical Corps.

He was a member of the medical staff of DePaul Hospital, Medical Center Hospitals and Kings Daughters Children's Hospital and orthopedic consultant at the Lake Taylor Hospital and Southeastern Virginia Training Center. He had considerable interest in administrative activities and served as secretary of the Medical Staff of Medical Center Hospitals. He was a member of the Executive Committee of Medical Center Hospitals and Kings Daughters Children's Hospital. He was a good committee man and had the great ability to take a broad view of any situation, which made him an able planner. He was blessed with fine intellect and imagination, an incisive wit; and his capacity for work was astounding.

His special interests included children's orthopedic problems, and he established scoliosis screening programs in the school systems in Tidewater, and the scoliosis service in Kings Daughters Children's Hospital. He also actively assisted in the myelodystrophy clinic at the Children's Hospital. He had a strong personality and was calm, with moderate and well-seasoned judgement. His thoughts were clear and precise, and his style was simple but effective, as were his teaching and surgical techniques. He was active in the teaching program for residents and students and liked imparting his knowledge in a warm, friendly and dedicated way. He was also interested in spinal injuries and was one of the first orthopedists to advocate open reduction and internal fixation for instability in this type of injury. He helped to introduce to Tidewater orthopedists the AO-ASIF internal fixation techniques so highly esteemed in Europe.

His interests outside medicine were diverse and included sailing, flying, skiing, the opera and classical music. He was an able pianist. He was deeply religious and found understanding, affection and support within the Sacred Heart Catholic Church.

He was a member of many local and national medical associations and had a great sense of generosity, loyalty and responsibility, which he communicated to those fortunate enough to be associated with him.

Following his marriage to Dolores in January of 1980, they adopted two children, Amy Beth and Michael Alan. He is also survived by his mother, Mrs. Amy Comeaux and four sisters. By his going we have lost a superb intellect, and a person of integrity and devotion. He has left a deep impact on the Tidewater area and will be remembered for his many contributions to the field of orthopedic surgery and his service to those both young and old.

# Memoir of Samuel E. Oglesby 1895-1981

*By Porter B. Echols, MD, F. Read Hopkins, MD, and John R. Saunders, MD*

Dr. Samuel Earl Oglesby of Lynchburg, Virginia, died of a heart attack on April 6, 1981. He was 85 years of age and had practiced medicine for 60 years.

Sam, as he was known to his many friends, was born at Boonsboro, just north of Lynchburg. He was the son of Dibbrel H. and Carrie Braford Oglesby.

After graduating from Washington and Lee University, Sam attended the University of Pennsylvania where he received his MD degree. He then took a residency in obstetrics and gynecology, and after spending a year in Cuba, he returned to Lynchburg as one of the first specialists in obstetrics and gynecology. He was a member of the Lynchburg Academy of Medicine, The Medical Society of Virginia, and the American Medical Association. He was a Fellow in the American College of Surgeons, a founding fellow in the American College of Obstetrics and Gynecology, and a member of the Virginia Obstetrical and Gynecological Society, of which he was a past president. He was certified by the American Board of Obstetrics and Gynecology. He was a founding fellow of the South Atlantic Association of Obstetricians and Gynecologists. This was probably his favorite medical group, and he seldom missed a meeting.

He was a member of the First Presbyterian Church, a Mason, and a Shriner.

Sam was an ardent huntsman and fisherman. Each year he would go camping with a group of fun-loving contemporaries on a hunting or fishing trip.

Sam loved to teach, and as one young doctor once said, "It was better to ask him a question than to spend a couple of hours in the medical library."

He is survived by two lovely children, Polly and Bill, and several grandchildren. He was a devoted husband, father, and grandfather.

"His ways were ways of cheerfulness and all his paths were peaceful . . ." We will all miss him.

Prepared and published at the request of the Lynchburg Academy of Medicine.

# VIRGINIA MEDICAL CLASSIFIED

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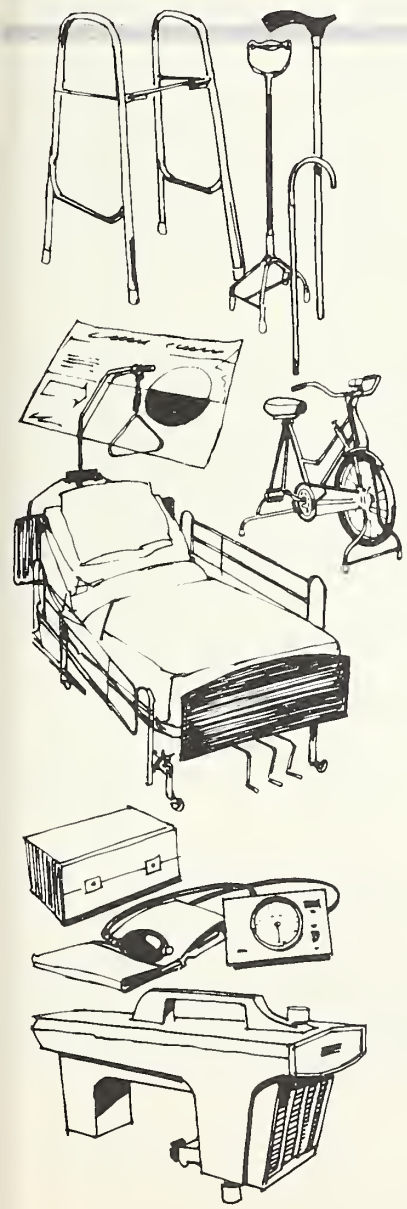

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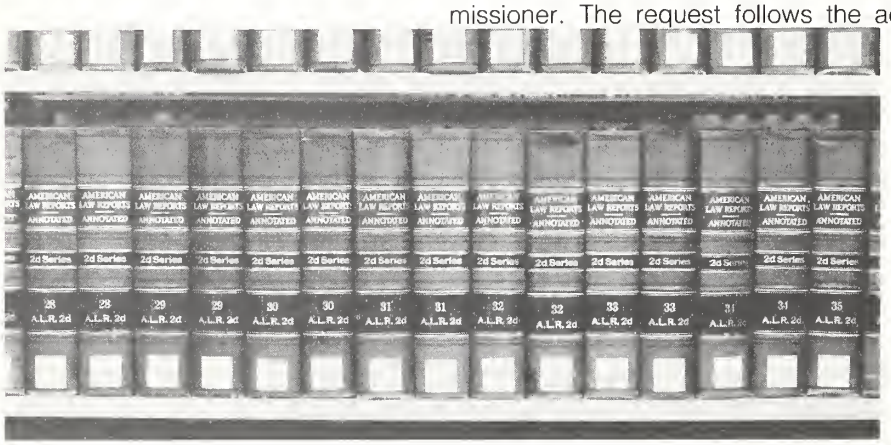
# Dividend Plan Offers Liability Boon; Rate Hike Filed

BEGINNING NEXT MONTH, a new plan is to begin generating dividends to doctors enrolled in The Medical Society of Virginia's liability insurance program. Announcement of the plan culminated a year of study by the Society's Insurance Committee and prolonged negotiations with the carrier, the St. Paul Insurance Companies.

In effect, the plan gives the MSV premium-payer a share in both profits and surplus accruing to the carrier's reserve fund for the payment of claims, and constitutes a premium rebate, so to speak. The first dividends would be apportioned early in 1984, allowing time for the settlement of claims filed this year.

With the news of the dividend plan came word that St. Paul's anticipated request for a liability rate hike has been filed with Virginia's Insurance Commissioner. The request follows the adverse liability experience of 1980, when both the severity and the frequency of claims took a decided jump not only in Virginia but all over the country. For the first time, the schedule of proposed increases is based not only on a doctor's place of practice, to reflect geographical variance in the incidence of claims, but also on his specialty, to take into account incidence variance on that basis.




Melissa Grimes-Guy

THE NEW DIVIDEND PLAN gives The Medical Society of Virginia "a better long-term liability program than is available elsewhere in the commercial marketplace," in the words of a consultant expertly versed in professional liability programs. He pointed out a significant by-product of the plan: Since dividend payments will depend on the level of claims experience for a given year, any improvement in experience could be rewarded directly through higher dividends.

Moreover, the plan sets up a watch on the entire liability program, by providing for full accountability of premiums, losses, expenses, and investment income. This accountability answers charges that the insurors have profited unduly by over-reserving against claims and have not taken the fund's investment income into account when calculating rates.

The plan also meets St. Paul's needs, of course. Taxes, the costs of running the program, and other necessary expenses are taken off the top of the monies involved. Then a reasonable profit is awarded to St. Paul. Then the dividends are apportioned.

As this was written, the plan was in the hands of the State Commissioner of Insurance, James W. Newman, whose approval was expected.

DR. ALVIN E. CONNER, Manassas, chaired the Insurance Committee through the long deliberations that led to the dividend plan. These are the committee members who worked with him: Dr. Owen W. Brodie and Dr. Emerson D. Farley, Jr., both of Richmond; Dr. J. William Giesen, Radford; Dr. William D.

# VSBUREAU

Liddle, Jr., Fredericksburg; and Dr. C. Waldo Scott, Newport News.

Of premier importance to the plan's successful evolution was the advice both cautionary and creative of The Medical Society of Virginia's actuary, Gustave A. Krause, of an Atlanta actuarial firm with impeccable credentials; and Allen C. Goolsby, III, The Medical Society of Virginia's attorney.

UNDER INVESTIGATION for possible emulation by The Medical Society of Virginia are educational programs sponsored by the medical societies of Georgia, Connecticut and Florida to improve liability experience.

The Georgia program consists of risk management workshops so completely evolved that the program has been copyrighted by the Medical Association of Georgia. As in Virginia, St. Paul is the professional liability carrier for the Georgia association and not only collaborated actively in formulating the program but rewards Georgia doctors who participate in it with discounts on their liability premiums. In the past year, 1,000 members of the Medical Association of Georgia earned the discount, which amounts to 10% in the first year after the doctor successfully completes a workshop, 8% the second year and 6% the third year. Each workshop also generates 11 hours of Category I CME credits.

Guided by the state association, Georgia's component medical societies present the workshops. Typically, a workshop is held in a motel and encompasses a weekend, beginning on Friday evening and extending to Sunday noon. There is a fee, ranging from $90 to $150, and the attending physician must also pay for his lodgings, but the workshops are strongly underwritten by both the Medical Association of Georgia and St. Paul with contributions of materiel, staff, some meals, and other supporting elements.

In the Connecticut program, the objectives are similar but the route is quite different. The Connecticut State Medical Society and its professional liability carrier, the Aetna Casualty Insurance Company, have developed a patient injury prevention program to be conducted in the state's hospitals. The program is based on the time-honored medical learning tool of the case report, but in this instance liability claims cases are reported and studied—real cases, gathered from Aetna's files, but with patient and doctor names and other identifying details expunged.

These malpractice episodes are presented at staff meetings in Connecticut's hospitals and then examined as to how and why the patient injury occurred and what corrective measures can be taken by the hospital to prevent a reoccurrence in future.

The Florida Medical Association formed its own insurance company in 1975 and in 1979 started giving malpractice seminars. Attendance at one of these seminars is now mandatory for every doctor who carries insurance with the physician-owned company.

As in Georgia, component societies stage the seminars. Each is three hours long, each presents three speakers: the Association's president; its legal counsel; and the carrier's vice president, who presents "case reports." To date 20 seminars have been held with 3,000 Florida physicians attending.

The seminars are approved for CME credit and are tuition-free.

GOING INTO THE MAIL this month to all Medical Society of Virginia members is a booklet setting forth accepted protocol for legal proceedings in Virginia. Titled "Principles of Cooperation for Physicians and Attorneys in the Commonwealth of Virginia" and first published in 1957, the booklet was brought up-to-date this year by the Medico-Legal Committees of The Medical Society of Virginia and the Virginia State Bar. Dr. Claude P. Sherman, Martinsville, was chairman on the MSV side and T. J. Markow, Richmond, headed the attorneys. A.G.

VIRGINIA MEDICAL

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# LETTERS

## More Letters on Va Med's Anti-Smoking Issue

Many thanks for the credit in the article "Guide to Stop Smoking" in the May issue.[1]

Please accept my compliments for a well-written, definitive article on the subject. I can understand why VIRGINIA MEDICAL is an award winner.

Louis Cenci

Executive Director,
National Interagency Council on Smoking and Health
291 Broadway, New York NY 10007

1. Gray A: Guide to stop smoking. Va Med 108:313-317, 1981

**Editors' Note:** The artwork for the May issue's cover was provided by the Council which Mr. Cenci heads and was so credited in the article. The Council is a voluntary association to combat smoking as a health hazard; among its members are the American Medical Association, the American Academy of Pediatrics, the American College of Chest Physicians, the American College of Radiologists, and the American College of Surgeons.

Please send me a copy of your May 1981 Guide to Stop Smoking as reported in *Medical World News* for June 22, 1981.

I congratulate you on your efforts to enlighten physicians with information for their patients to control this very serious health problem.

I have engaged in a personal anti-smoking program in Indiana, and I am enclosing a catalog that describes anti-smoking paraphernalia available to all physicians.

Lawrence H. Bates, MD

3130 North Meridian Street
Indianapolis IN 46208

**Editors' Note:** Dr. Bates' catalog offers bumper stickers, buttons and T-shirts with a choice of 219 slogans that can be printed on them, such as, "Smoking is colorful—black lungs, yellow teeth," "Even turkeys don't smoke," "When I die, bury me in the non-smoking section," "A pack a day will keep your doctor in hay."

I wish to compliment you on the excellent cover story, "A Guide to Stop Smoking", that appeared in the May issue.[1]

We appreciate the coverage given to our association. If the Virginia Lung Association can be helpful in the future, we would be happy to work with you.

Taylor R. Copping

Executive Director,
Virginia Lung Association
PO Box 7065, Richmond VA 23221

Congratulations on the position against smoking assumed by the May issue. Only as the medical profession promulgates by word and exemplifies by action good health habits can we expect our patients to receive and accept the message of preventive medicine. Dr. Witte's excellent article on "Cigarette Smoking in Youth"[1] is a challenge to every health care professional to address the problem where the most benefit can be accomplished, the area of prevention.

Conspicuous by its lack of presentation were some of the continuous efforts of the Virginia Division of the American Cancer Society. Through public and professional education programs, hospital-based Quit Smoking Clinics (eight session, clinic format), Target 5 Task Force (promoting anti-smoking activity), and the Great American Smoke-Out (annually in November), the Society has been working assiduously to bring the deleterious health effects of cigarette smoking to the attention of the citizens of our commonwealth. As noted in VIRGINIA MEDICAL, significant emphasis has been placed in the development and implementation of school programs and health. This year we expect to communicate information on cancer prevention, including anti-smoking information, to 450,000 Virginia youths. The Virginia Division of the American Cancer Society is proud to stand with the other organizations detailed in your article in declaring the health hazards of smoking. Interested physicians, other health care professionals, or lay persons may obtain further information on these programs by contacting their local American Cancer Society offices, or by calling the division's office in Richmond on the toll-free Cancer Answer Service line (1-800-552-7996).

Again, congratulations to The Medical Society of Virginia and to you for providing the profession with a clear "Guide to Stop Smoking".

**Robert E. Berry, MD**

President, Virginia Division,
American Cancer Society
PO Box 7288, Richmond VA 23221

1. Witte JJ: Cigarette smoking in youth: prevention is the key. Va Med 108:319-321, 1981

**Editor's Note:** The smoking cessation activities of the American Cancer Society and its Virginia Division are well-known and highly regarded, and the author took care, in putting the Guide together, to include descriptions of those that were appropriate to the Guide's intent and format.

## More Letters on the Statewide CME Survey

In your excellent May issue there was a Va Med News Bureau article on page 284 headed, "In State Survey, Most Members Vote for Mandatory CME."[1] After reading this, I then read the report of the survey on page 348, "The CME Experience of MSV Members: A Statewide Survey."[2] Shortly afterwards an article in a Richmond newspaper also suggested that the survey indicated a large majority of Medical Society of Virginia members favored compulsory CME.[3] This may be the case. Certainly the House of Delegates voted several years ago that this be mandatory for membership; however, the statistics can be interpreted in varying ways, and I would like to point out certain facts about these figures taken from the article on page 348 of the May issue:

1. 64% of the (6,036) Medical Society of Virginia membership responded (3,863).

2. Of the above 64% (3,863), 63% favored the CME requirement, i.e., 3,863 × 63% = 2,434.

3. If 60% of the 2,434 members (1,460) favored CME as compulsory for membership in the state society, this represents about 24% of the membership.

My arithmetic and interpretation of the survey report may be in error; however, there are many of us in favor of CME but not on a compulsory basis. We would hope that the House of Delegates will see fit to eliminate this requirement, which can cause a definite decrease in membership, even though it may not have done so up to this point. For generations many Virginians have objected to compulsion.

**F. J. Wright, Jr., MD**

49 South Market Street
Petersburg VA 23803

1. Va Med News Bureau: In state survey, most members vote for mandatory CME. Va Med 108: 284-285, 1981
2. Mazmanian PE, Nelson K, Nipe GM: The CME experience of Medical Society of Virginia members: a statewide survey. Va Med 108:348-351, 296, 1981
3. Associated Press: Doctors back more education. Richmond Times-Dispatch, June 1, 1981

I have serious reservations with respect to some of the conclusions of the Virginia CME survey.[2] How is it possible for some 1,351 physicians to vote "no" to mandatory CME "under any circumstances" and then have an additional 973 physicians vote "no" to mandatory CME for periodic registration of license (60.2% of the 3,861 respondents), yet still show in the summary that "over half favored mandatory CME for . . . periodic registration of license"?

I know the report also said a sentence earlier, ". . . of the 63%. . . ". However, 0.6 × 0.63 = .38, which approximates 38% of the *entire* group that answered "yes" to mandatory CME for periodic reregistration. This is certainly a minority of the entire sample, not a majority.

By similar analysis, a "no" vote can be constructed to the questions as well as hospital privileges (respectively 60.2%, 53.9% and 53.2%). The published analysis certainly does not consider this approach and the resultant opposition it suggests.

It is my view that the published conclusions, even though precisely true, emphasize results from part of the group only and certainly do not reflect the total sample opinion. Indeed, the 35% who voted no to "any CME" got no press at all in the conclusions, nor did the 25% of the group who voted "no" to the specific subquestion. Yet these two segments represent 60% of the entire group—a pretty vocal minority that seems to have been effectively suppressed through division.

Are the advances of medicine we have enjoyed in

this country the past decades to be accelerated through reports of approved CME hours to the state, to societies, or to hospitals? I think not.

**Richard A. Wetzel, MD**
Department of Nuclear Medicine
William Beaumont Hospital, 3601 West 13 Mile Road
Royal Oak MI 48072

**Editor's Note:** Dr. Wetzel formerly practiced in Virginia and is an out-of-state MSV member.

*Dr. Kinloch Nelson, director of continuing medical education for The Medical Society of Virginia and a co-author of the state CME survey, replies:*

I find no error in Dr. Wright's arithmetic.

In response to Dr. Wetzel, there was no attempt to emphasize any particular point of view. We simply reported the data as collected. These showed that in answer to the question, "Do you believe that CME should be mandatory under any circumstances?", 63% replied in the affirmative; 35% in the negative; 2% did not respond.

In answer to the question about advances in medicine, we do not see any particular relationship between the advances in medicine and CME, or the reporting of same. We do believe, however, that CME, obtained in many ways, formal and informal, improves the competence and performance of physicians, and through them the quality of medical care.

## Fred Eugene Hamlin, Jr.: "Warm and Wonderful Friend"

The passing of Fred Eugene Hamlin, Jr., on June 2, 1981, evokes a feeling of bereavement and creates and irreplaceable vacuum. Although we knew Fred as the administrator of The Medical Society of Virginia's group insurance program, Fred was more than that. He was a dedicated, unselfish man, deeply committed to helping others. He was devoted to the physicians of The Medical Society of Virginia. We could count on him.

Although Fred is gone from our midst, what he did for the members of The Medical Society of Virginia will live on in the insurance coverage protection he so carefully planned for each of us.

His smile was broad and his handshake warm. We shall always cherish the memory of this warm and wonderful friend.

**Alexander McCausland, MD**
609 South Jefferson Street
Roanoke VA 24011

## More Words, Words, Words of Wisdom

In reference to and not to conflict with the editorial, "Words, Words, Words" in the June issue of VIRGINIA MEDICAL,[1] please take under advisement upon reaching a concensus of opinion with the author or irregardless of same, the addition of the following addendum:

Exetera, eksetera, ekcetera.

**Simon Russi, MD**
101 Queen Street
Alexandria VA 22314

1. Nelson K: "Words, words, words". Va Med 108:428, 1981

Dear Dr. Nelson;-

Your alright in my lecher. I enjoyed your acceptional artickle on the use antabuse of hour mothers' tongue. I red it in the liberry on a Whensday. I'm glad I ran acrossed it. I myself two am intrested in entomology and that's no fly-by-nite hobby.

The inference you referenced to ivoked a veritable myriad of implications, vis-a-vis, the inaptitude of the learning provided in the lower levels of our great schools. Today's stewedents are not bean taut the correckt steady habitus, excetera.

This exceedingly unique situation has evinced from the hypersuperanalyzation to which our societal promotees have been predicated without a shed of evidence that the proper imperfections have been inadequately underachieved.

Wood that you struck a cord and that your asstout perspicspaciousness wood be highly exclaimed.

I don't think!

**Robert M. Miskimon, MD**
5100 Monument Avenue
Richmond VA 23230

# MEETINGS ABOUT MEDICINE

**August 31-September 2**
**International Conference on Prostaglandin and Cancer** (Georgetown University), *Washington, DC.* Kathleen Bresette, Lombardi Cancer Institute, Georgetown University Medical Center, Washington DC 20007, (202) 625-3914.

**September 3-5**
**Anesthesiology Symposium** (Eastern Virginia Medical School), *Portsmouth.* Mrs. Murphy, (804) 398-5125.

**September 9-11**
**Cardiology Board Review Program Update in Cardiology** (American College of Cardiology), *Atlanta, Georgia.* Cat. 1 credit. American College of Cardiology, 9111 Old Georgetown Rd., Bethesda MD 20014.

**September 11**
**Community Health—An Inter-Professional Course and Workshop** (University of Maryland), Baltimore. Betty B. Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**September 12**
**Second Saturday Symposium—Neurology** (Eastern Virginia Medical School), *Norfolk.* Robert L. Cassidy, MD, PO Box 1980, Norfolk VA 23501, (804) 446-5268.

**September 12-13**
**Diagnostic Ultrasound in Ob/Gyn** (Johns Hopkins University), *Baltimore.* Cat. 1 credit. Fee: $400. Joan Batt, Dept. of Radiology, Johns Hopkins Hospital, Baltimore MD 21205, (301) 955-8450.

**September 14-17**
**Scientific Assembly, American College of Emergency Physicians,** *New Orleans.* 29 hrs. Cat. 1. George Podgorny, MD, PO Box 61911, Dallas TX 75261, (214) 659-0911.

**September 16**
**Pediatric Nephrology—Urology: A Clinical Approach to Common Problems** (Children's Hospital National Medical Center), *Washington, DC.* 7 Cat. 1 credits. Susan Weiss, Convention Center CHNMC, 111 Michigan Ave., NW, Washington, DC 20010, (202) 745-3000.

**September 17-19**
**Breast Cancer: Current Concepts and Diagnosis, Treatment, and Rehabilitation** (Eastern Virginia Medical School), *Norfolk.* G. Patrick Maxwell, (804) 623-1090.

**September 18-19**
**Behavioral Aspects of Adolescent Health Care** (University of Maryland), *Baltimore.* Betty B. Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**September 18-19**
**Selected Topics in Pediatrics** (Eastern Virginia Medical School, Children's Hospital of the Kings Daughters), *Norfolk.* 8 Cat. 1 credits. Fee: $30. Jean E. Shelton, MD, 800 W. Olney Rd., Norfolk VA 23507, (804) 628-3798.

**September 18-20**
**American Medical Association Continuing Medical Education Course—Various Topics** (AMA), *Philadelphia, Pennsylvania.* 6 Cat. 1 credits. Fee: members, $65; nonmembers, $95. G. K. Jewett, 535 N. Dearborn St., Chicago IL 60610, (312) 751-6000.

**September 19**
**Advances in Laboratory Medicine** (East Tennessee State University, Ames Laboratories), *Johnson City, Tennessee.* 7 Cat. 1 credits. Fee: $50. Shirley Bogart, Continuing Medical Education, (615) 928-6426, ext. 204.

**September 21-22**
**Oral Complications of Cancer Chemotherapy** (University of Maryland), *Baltimore.* Betty B. Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**September 21-23**
**Internal Medical of the 1980s** (University of Illinois), *Chicago.* University of Illinois at the Medical Center, 1853 W. Polk St., Rm. 144, Chicago IL 60612.

**September 21-24**
**Annual Meeting, American Academy of Family Physicians,** *Las Vegas.* R. Tusken, 1740 W. 92nd St., Kansas City MO 64114.

**September 21-24**
**1981 Scientific Assembly** (American Academy of Family

Physicians), Las Vegas, Nevada. Hour-for-hour Cat. 1 credit. American Academy of Family Practice, 1740 W. 92nd St., Kansas City MO 64114, 1-800-821-2512.

**September 21-25**
**Basic Practicum in UltraSound** (Johns Hopkins University), *Baltimore.* Cat. 1 credit. Fee: $400. Betty B. Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**September 24-25**
**Fourth Annual Conference on Aging and Health** (Salem VA Medical Center and, University of Virginia), *Salem.* 10 Cat. 1 credits. Frank Brochu, MD, Veterans Administration Medical Center, Salem VA 24153, (703) 982-2463.

**September 24-26**
**Sixth Annual Symposium on Advances in Cancer Treatment Research** (University of Maryland), *Baltimore.* Betty B. Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**September 25**
Environmental Insults to the Fetus and Newborn: 4th Annual Perinatal Conference (Medical College of Virginia), *Richmond.* Kathy E. Johnson, Box 48, MCV Station, Richmond VA 23298, (804) 786-0494.

**September 26**
**Recent Advances in Gastroenterology** (Northern Virginia Consortium for Continuing Medical Education), Alexandria Hospital, *Alexandria.* 4 hrs. AMA/MSV Cat. 1. Sheila Gell, 4600 King St., Suite 2N, Alexandria VA 22314, (703) 998-4906.

**October 1-3**
**Eastern Virginia Medical School Summer Conference at the Beach** (Department of Internal Medicine), *Virginia Beach.* James P. Baker, MD, Eastern Virginia Medical School, Norfolk VA 23501, (804) 628-3584.

**October 1-3**
**Topics in Gastroenterology and Liver Disease: Medical**

# LEARNING EXPERIENCES

**CARE OF THE AGED patient brought together these 37 doctors and one dentist recently for a morning of continuing medical education at the Richmond Hyatt House. Four physicians formed a symposium, speaking on plastic surgery, urinary tract problems, and pulmonary and cardiac disease, all as they relate to the elderly patient; they were Dr. Michael Scheflan, Dr. C. M. Kinloch Nelson, Dr. Clifton L. Parker, and Dr. Kenneth C. Griffith.**

**Coordinator of the program was Dr. H. Chesley Decker, medical director for Health of Virginia, which operates three geriatric facilities in Richmond: University Park, the Windsor and Mrs. Plyler's Nursing Home. The symposium was accredited for 4½ CME hours by the McGuire Clinic.**

**Assembled for the photograph are, in the first row from left, Dr. Joseph F. Kell, Jr.,; Dr. Rex Blankinship; Dr. Paul D. Camp; Dr. John D. Call, Dr. Nelson; Dr. Decker; Dr. L. M. Breeden; Dr. John H. Pope, Jr., Dr. John M. Daniel, III; Dr. David Pollack, Dr. A. L. Herring; Dr. H. S. Zfass;**

**and Surgical Aspects** (Johns Hopkins University), *Baltimore.* 19 credits. Theodore M. Bayliss, MD, Office of CME. 720 Rutland Ave., Baltimore MD 21205, (301) 955-3168.

**October 1-4**
**Annual Meeting, American Society of Internal Medicine,** *New York City.* W. R. Ramsey, 2550 M Street NW, Suite 620, Washington DC 20037.

**October 2-3**
**Calcitonin—Biologic and Clinical Aspects** (University of North Carolina School of Medicine at Chapel Hill), Velvet Cloak Inn, *Raleigh, North Carolina.* 7 hrs. Cat. 1. Fee: $25. William B. Wood, MD, (919) 962-2118.

**October 7-9**
**Infection Control** (East Tennessee State University College of Medicine and Russell County Medical Center), *Abingdon, Virginia.* 7 credits. Fee: $50. Shirley Bogart, (605) 928-6426, Ext. 204.

**Dr. Julian E. Mangus; and Dr. Evelyn Daniel. In the second row, reading from left: Dr. Parker; Dr. Henry H. Wilson, Jr.; Dr. Frank Pole; Dr. Ernest C. Hermann; Dr. Frank R. Kelly, Jr.; Dr. William B. Fitzhugh, the dentist; Dr. Justo T. Perez; Dr. Thomas M. Arrington; Dr. William M. T. Forrester; Dr. Edward E. Haddock; Dr. Stuart M. Solan; Dr. Edward L. Boyce, Jr.; Dr. Adney K. Sutphin, Dr. G. W. Porter; Dr. John B. Bullock, Dr. Griffith Daniel, and Dr. James C. LeFon.**

**October 9-11**
**The Pediatric Approach to Common Hematological Problems** (American Academy of Pediatrics, University of Maryland, Johns Hopkins University), *Ocean City, Maryland.* 11 credits. CME Course Coordinator, 720 Rutland Ave., Baltimore MD 21205, (301) 955-5880.

**October 10**
**Second Saturday Symposium, Psychiatry and Behavioral Sciences** (Eastern Virginia Medical School), *Norfolk.* Robert L. Cassidy, MD, Eastern Virginia Medical School, Norfolk VA 23501, (804) 446-5268.

**October 11-16**
**Annual Meeting, American College of Surgeons,** *San Francisco.* C. R. Hanlon, MD, 55 E. Erie Street, Chicago IL 60611.

**October 16**
**Annual Family Practitioners Symposium** (Gill Memorial Hospital), Patrick Henry Hotel, *Roanoke.* AAFP approved. David N. Keys, MD, PO Box 1789, Roanoke VA 24008, (703) 344-2071.

**October 16**
**Pediatrics Prep III: Neonatology** (East Tennessee State University College of Medicine), *Bristol, Tennessee.* 7 credits. Shirley Bogart, (615) 928-6426, Ext. 204.

**October 17**
**3rd Annual Behavioral Medicine Conference:** Primary and Secondary Risk Reduction of Coronary Artery Disease (University of Virginia), *Charlottesville.* 7 hrs. Cat. 1. Fee: $65. Dr. R. Craig Lefebvre, Behavioral Medicine Center, Blue Ridge Hospital, Charlottesville VA 22901, (804) 924-5314.

**October 30**
**Update in Practical Clinical Endocrinology** (University of Maryland), *Baltimore.* Betty B. Saar, 10 S. Pine Street, Baltimore MD 21201, (301) 528-3956.

**October 30-31**
**Allergy and Immunology for the Clinician** (American Academy of Allergy), *Hilton Head, South Carolina.* 14 credits. A. J. Kimber, 611 E. Wells Street, Milwaukee WI 53202, (414), 272-6071.

**October 31-November 5**
**Annual Meeting, American Academy of Pediatrics,** *New Orleans.* M. H. Jennison, MD, 1801 Hinman Ave., Evanston IL 60204.

**November 7-8**
**Reading Retreat VII: A Dialogue on Recent Advances in Cardiology and Pulmonary Medicine** (Virginia Chapter, American College of Physicians), Peaks of Otter Lodge, *Roanoke.* 15 Cat. 1 credit hrs. Fee: $70. Daniel F. Mohler, MD, Dean's Office, Box 395, McKim Hall, Charlottesville VA 22908.

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# BOOKS

**Advances in Internal Medicine, Volume 26,** edited by Gene H. Stollerman. Chicago, Year Book Medical Publishers, 1981, 599 pages, $39.95.

This latest volume of *Advances in Internal Medicine* continues a series of fine annual reviews that has been going for over 25 years. Dr. Gene Stollerman of the University of Tennessee College of Medicine has been the chief editor since the publication of Volume 15 in 1969. At that time he elucidated his editorial policy in the "Editor's Preface": to translate and condense the most relevant scientific information to make it available to practicing physicians and to present new insights into human biology and pathophysiology that demand the attention and comprehension of all physicians.

The current volume carries on successfully with the same policy. Over the years Dr. Stollerman and his associate editors have collected an outstanding group of contributors who have described the new developments in medicine. Many of them have been personally involved in the developments they discuss. This volume is no exception.

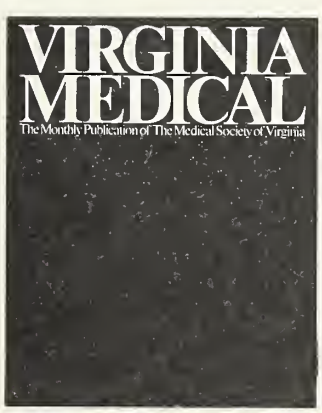
Many of the reviews concern narrow or specialized topics and will be of interest to a limited number of physicians. However, they are often comprehensive and provide many references, so that the interested physician can study the subject in depth. They also fulfill the editor's aim in that some make scientific information available to practicing physicians while others present new insights into human biology. A few, such as "Sleep Apnea Syndrome: Recent Advances" by Guilleminault, Cummiskey and Dement, do both.

Several of the reviews present research or basic science information that is of concern to physicians of varied interests. For example, "Endorphins and Enkephalins" by Kosterlitz and McKnight describes important developments in the knowledge of transmission of painful stimuli in the central nervous system. This is one of the more difficult reports to read and contains little information that is useful today in treating patients. Another basic science review, "Bacterial Variation and Antibiotic Action" by Eisenstein, reports on advances in knowledge of biologic mechanisms. It contains very useful and important information about virulent organisms and antibiotic use but also is not very helpful in treating individual patients. The writing is excellent, making it much easier for the non-specialist to read. In "Endotoxic Immunity," Braude discusses the importance of bacterial toxins and experiments that may lead to the development of antisera for effective treatment of patients with gram negative infection.

Many of the reviews contain information of immediate practical use in patient care. One of the best is the previously cited "Sleep Apnea Syndrome: Recent Advances" by Guilleminault et al. It also contains much basic information about respiratory and central nervous system physiology. Other practical reviews are "The Role of Dietary Carbohydrate and Fiber in the Control of Diabetes" by Anderson; "Vasodilator Therapy of Congestive Heart Failure" by Cohn; "Hyperamylasemia: Interpretation and Newer Approaches to Evaluation" by Berk and Fridhandler. There are many more interesting or useful reports.

Volume 26 and other recent volumes of *Advances in Internal Medicine*, as well as other reviews, such as *Annual Review of Medicine,* make many of the new developments in medicine available to physicians who have neither the time nor the large library necessary to keep up with important changes that are occurring every year. In view of the very high cost of medical books, however, many physicians may want to study these volumes in hospital libraries instead of purchasing them.

JOHN L. GUERRANT, MD
University of Virginia Medical Center
Charlottesville VA 22908

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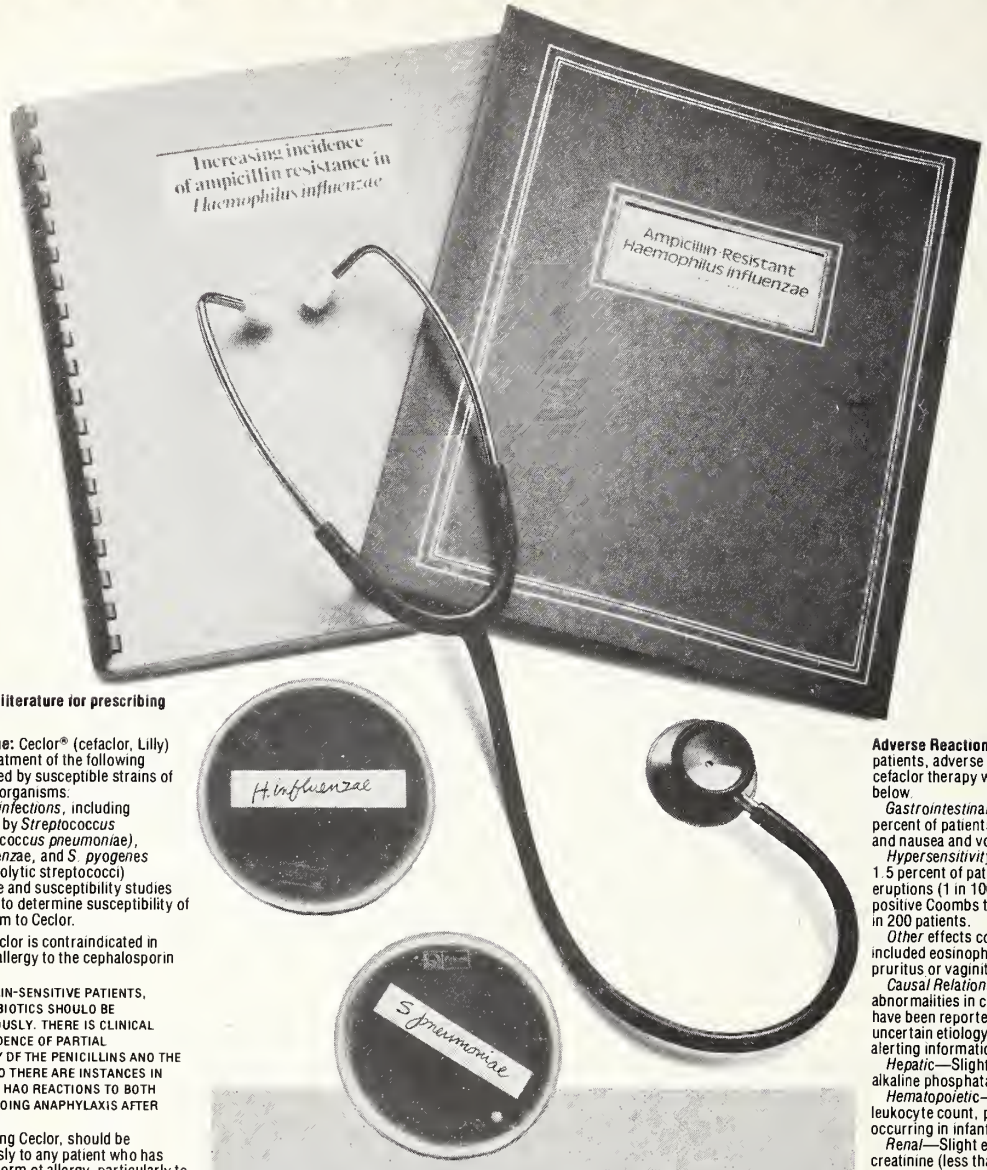
# An added complication... in the treatment of bacterial bronchitis*




**Brief Summary.**
**Consult the package literature for prescribing information.**

**Indications and Usage:** Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

*Lower respiratory infections*, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae)*, *Haemophilus influenzae*, and *S. pyogenes* (group A beta-hemolytic streptococci)

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

**Contraindication:** Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

**Warnings:** IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS TO BOTH DRUG CLASSES (INCLUDING ANAPHYLAXIS AFTER PARENTERAL USE).

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

**Precautions:** If an allergic reaction to cefaclor occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of cefaclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such a condition, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

*Usage in Pregnancy*—Although no teratogenic or antifertility effects were seen in reproduction studies in mice and rats receiving up to 12 times the maximum human dose or in ferrets given three times the maximum human dose, the safety of this drug for use in human pregnancy has not been established. The benefits of the drug in pregnant women should be weighed against a possible risk to the fetus.

*Usage in Infancy*—Safety of this product for use in infants less than one month of age has not been established.

**Adverse Reactions:** In clinical studies in 1493 patients, adverse effects considered related to cefaclor therapy were uncommon and are listed below.

*Gastrointestinal* symptoms occurred in about 2.5 percent of patients and included diarrhea (1 in 70) and nausea and vomiting (1 in 90).

*Hypersensitivity* reactions were reported in about 1.5 percent of patients and included morbilliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs tests each occurred in less than 1 in 200 patients.

*Other* effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

*Causal Relationship Uncertain*—Transitory abnormalities in clinical laboratory tests results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

*Hepatic*—Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

*Hematopoietic*—Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

*Renal*—Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200). [070379R]

**Some ampicillin-resistant strains of Haemophilus influenzae—a recognized complication of bacterial bronchitis*—are sensitive to treatment with Ceclor.[1-6]**

In clinical trials, patients with bacterial bronchitis due to susceptible strains of Streptococcus pneumoniae, H. influenzae, S. pyogenes (group A beta-hemolytic streptococci), or multiple organisms achieved a satisfactory clinical response with Ceclor.[7]

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*Many authorities attribute acute infectious exacerbation of chronic bronchitis to either *S. pneumoniae* or *H. influenzae*.[8]

*Note*: Ceclor® (cefaclor) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

**References**

1. Antimicrob. Agents Chemother., *8*:91, 1975.
2. Antimicrob. Agents Chemother., *11*:470, 1977.
3. Antimicrob. Agents Chemother., *13*:584, 1978.
4. Antimicrob. Agents Chemother., *12*:490, 1977.
5. Current Chemotherapy (edited by W. Siegenthaler and R. Luthy), II: 880. Washington, D.C.: American Society for Microbiology, 1978.
6. Antimicrob. Agents Chemother., *13*:861, 1978.
7. Data on file, Eli Lilly and Company.
8. Principles and Practice of Infectious Diseases (edited by G.L. Mandell, R.G. Douglas, Jr., and J.E. Bennett), p. 487. New York: John Wiley & Sons, 1979.

*Additional information available to the profession on request from Eli Lilly and Company, Indianapolis, Indiana 46285.*

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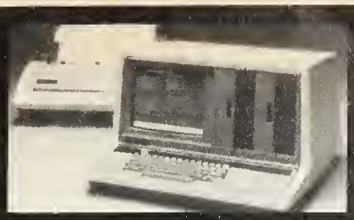

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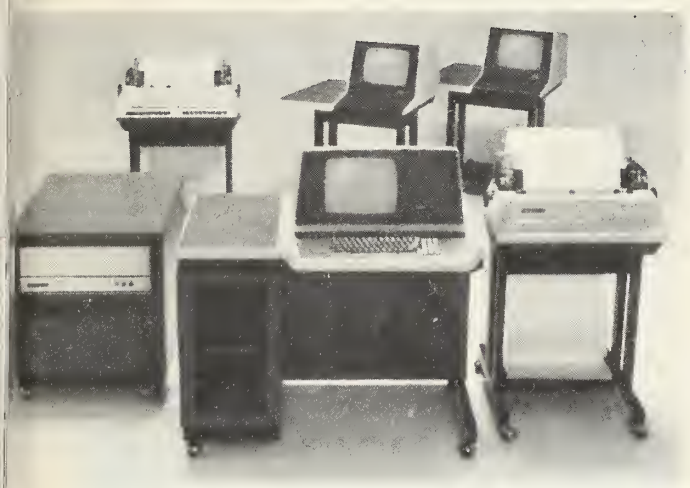

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*Chesapeake Medical Society*
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*Fairfax County Medical Society*
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**Warren P. Klam, MD,** Pediatrics, Box 7201, Arlington VA 22207

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*Fredericksburg Area Medical Society*
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*Halifax County Medical Society*
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*Norfolk Academy of Medicine*
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**Joseph W. Fay, MD,** Internal Medicine/Hematology, 901 Hampton Blvd, Norfolk VA 23507
**Robert G. Gayle, MD,** Cardiovascular Surgery, 400 West Brambleton Avenue, Norfolk VA 23510
**Paul J. Kovalcik, MD,** General Surgery, Norfolk General Hospital, Norfolk VA 23507
**Donald L. Levy, MD,** Obstetrics/Gynecology, 600 Gresham Drive, Norfolk VA 23507

*Portsmouth Academy of Medicine*
**Michael Vulpe, MD,** Neurology, 3105 West Branch Blvd, Chesapeake VA 23321

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*Richmond Academy of Medicine*
**Francis N. Bain, MD,** Family Practice, Box 30, Goochland VA 23063
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**Luthur A. Beazley, III, MD,** Pediatrics, 6141 Flamingo Drive, Roanoke VA 24018

*Southside Virginia Medical Society*
**N. A. Emiliana, MD,** Psychiatry, 312 South Sycamore Street, Petersburg VA 23803
**Philip P. O'Donnell, MD,** Neurology, 510 South Sycamore Street, Petersburg VA 23803

*Tri-County Medical Society*
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# Common Drug Reactions: Their Mechanisms and Management

W. Kenneth Blaylock, MD, *Richmond, Virginia*

Drugs pervade almost all medical therapy today, creating widespread exposure of patients to adverse reactions. Commonly seen in day-to-day practice are skin eruptions due to drug sensitivity. The author reviews the clinical manifestations of these cutaneous drug reactions and discusses their mechanisms and management.

SKIN eruptions are common manifestations of drug sensitivity, and it is important for all physicians to review periodically the clinical manifestations of cutaneous drug reactions, their mechanisms and the timely management of the more serious eruptions. It is important to realize that all drug reactions are not the same; careful attention must be given to the mechanism of each reaction, in order to know whether the drug should be discontinued or administered in the future to the reactive patient.

The incidence of cutaneous drug reactions is increasing. There are many reasons for this increase:

- Use of multiple drugs in same patient.
- Use of drugs in immune-suppressed persons or persons with reduced renal function.
- Local application followed by systemic administration of same drug, which enhances allergic sensitization.
- Short, intermittent use of drugs, which favors sensitization on subsequent reexposure.
- Administration of some drugs in repository or depot form, which increases the possibility of sensitization.
- Recurrent use of such potent sensitizers as penicillin for relatively minor ailments, which promotes sensitization.

In a hospitalized group of patients, approximately 3% will develop an adverse cutaneous drug reaction. The average patient in an acute care setting in a general hospital is receiving eight drugs, so that when a drug eruption occurs, it is generally very difficult to be certain which drug has produced the eruption, al-

From the Department of Dermatology, Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Blaylock at Box 169, MCV Station, Richmond VA 23298.

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**Table 1. Potential of Commonly Used Drugs to Induce Allergic Reaction (Scale 1-10).**

| | | | |
|---|---|---|---|
| Penicillin | 10 | Quinidine | 4 |
| Ampicillin | 10 | Diphenylhydantoin | 4 |
| Cephalosporins | 6 | Indomethacin | 3 |
| Sulfonamides | 6 | Allopurinol | 2 |
| Chlorothiazides | 6 | Valium | 1 |
| Barbiturates | 5 | Digitalis | 1 |
| Phenothiazines | 4 | Insulin | 1 |

Table 2. Harmful Immune Reactions Produced by Drugs as Antigens.

| | Type I | Type II | Type III | Type IV |
|---|---|---|---|---|
| | Anaphylaxis or Urticaria | Cytolysis | Toxic Complex Syndrome (Soluble Antigen-Antibody) | Delayed Sensitivity |
| Response mediated by | IqE antibody | IqG, IqM | IqG, IqM | sensitized lymphocytes and macrophages |
| Histamine | present in skin | absent in skin | occasionally present in skin | present in skin |
| Complement | absent in skin | absent except with cold hemagglutinins | present in skin | absent in skin |
| Effector cell | mast cells and leukocytes | mononuclear and macrophages | polymorpho nuclear leukocyte | lymphocytes and macrophages |
| Skin Test | immediate wheal and flare when positive | none | infiltration 12–48 hrs, wheal and flare later shows necrosis | delayed tuberculin-type response |
| Clinical syndrome | urticaria, agioneurotic edema | penicillin-induced immuno-hemolytic anemia, neutropenia, thrombocytopenia | serum sickness, allergic or nodular vasculitis, erythema nodosum | maculopapular eruption |
| Commonly used drugs likely to produce this clinical syndrome | penicillin sulfonamide tetracycline insulin | barbiturates penicillin sulfonamide Quinidine | sulfonamide penicillin phenothiazine tetracycline | penicillin phenothiazine phenylbutazone chlorothiazindes |

though the number of suspicious drugs can generally be reduced to two or three. The antigenic potential of drugs commonly dispersed is listed in Table 1. Penicillin heads the list since it will sensitize three of every 100 persons receiving it; yet it is a safe drug in the non-allergic person, with very low toxicity in such organs as liver, kidney and bone marrow.

A recent five-year experience in dermatology at the Medical College of Virginia Hospitals reveals that 11% of all skin consultations seen in the hospital are related to drug reaction (54/498 per year) and that the most common cutaneous reaction seen in these hospitals is the maculopapular/Type IV immune response.

Although the Type I urticarial reactions are potentially the more serious reactions, they are not as common in hospital experience as in office practice. The most common drugs causing cutaneous reactions in our experience are:

| | |
|---|---|
| Penicillin | Sulfonamides |
| Diphenylhydantoin | Indomethacin |
| Cephalosporin | Allopurinol |

Drug eruptions may simulate many cutaneous diseases morphologically. A single drug may produce a localized or fixed eruption in one individual while the same drug in another person may produce a reaction leading to a complete loss of the superficial layers of skin. The cutaneous expressions of a drug reaction are so varied that it is not safe to link specific cutaneous lesions to a particular drug. In summary, almost any drug can produce virtually any type of skin eruption. This variability is related to the following factors:

- Age—young children unlikely to have urticaria.
- Sex—older men more likely to develop photosensitivity.
- Genetics—enzyme deficiencies may favor specific skin reaction.
- Route of exposure—injections increase the chance for anaphylaxis.
- Dosage and frequency of administration.

Although the pathobiology of many drug reactions is not completely understood, it is possible to divide the reactions into three general categories: allergic, nonallergic (toxic), and photo sensitization reactions. The tendency for many physicians to characterize all drug reactions as allergic is certainly untrue and misleading. Serious drug overdosage, secondary side effects, drug intolerance and idiosyncratic reactions to drugs will not be considered here, but several drug reactions that are unusual in their presentation and produce marked morbidity will be discussed.

## Allergic Drug Reactions

A review of the literature on the allergic mechanisms of drug reactions is bewildering, for there are several types of immune responses to a drug. The pathology may be variable, and the tests are not very specific. Drug allergy is one allergic state where

serum levels of specific antibodies to the drug are not found in many instances, penicillin allergy being an exception. These observations have hindered the development of criteria for diagnosing specific types of drug reactions. Generally, it is not possible to skin test a patient topically or intradermally with the drugs he is taking and predict which drug has caused the cutaneous reaction, although in the patient sensitive to penicillin this may be done later, after the convalescent period. Many of the skin eruptions classified as non-allergic drug reactions are probably allergic; in fact, many of the drug reactions that we see as clinicians, are allergic in nature, but the test-tube methodology is inadequate to demonstrate the antigen-antibody reaction producing the eruption.

Allergy is defined as an acquired alteration in the ability of an individual to react to an antigen; this reaction is produced in the patient by circulating antibodies or sensitized cells. Table 2 reviews the common allergic drug reactions and places them in the standard categories as defined by Gel and Coombs. Many allergic reactions may be placed in one or another of these categories, although it is not possible to confine every known reaction to a single category.

As a general rule, allergic drug reactions may be produced or reproduced by minute amounts of a drug previously tolerated; successive attacks do not usually confer tolerance. The morphologic lesions in the skin are not related to the pharmacologic activity of the drug, and drugs with different pharmacologic capabilities and different antigenic structures may produce the same morphological disorders in the skin. Allergic drug sensitivity is specific, and a person sensitive to a drug may tolerate, although not necessarily, a different isomer of the same drug; for example, a person sensitive to penicillin G may tolerate carbenicillin. Skin testing in a patient sensitive to penicillin G who is about to receive carbenicillin must be done with carbenicillin, not penicillin G or penicilloyl-polylysine.

Allergic potential is based on the incidence of persons developing an allergic reaction, i.e., the number of reactions per 100 persons receiving the drug. Many of the reactions which occur in persons receiving allopurinol are quite severe, but the incidence of the drug's reactions is quite low.

## Toxic Drug Reactions

There are several drug eruptions occurring in the skin that cannot be attributed at this time to allergic mechanisms. They are:

- Acneiform or pustular—bromides and iodides corticosteroids; tridione; lithium.
- Alopecia—antithyroid drugs; oral contraceptives; anticoagulants; allopurinol.
- Fixed drug reaction—anovulatory drugs; phenylbutazone; salicylates; sulfonamides.
- Lichenoid and lichen planus—gold; chloroquine; quinidine; thiazides.
- Toxic epidermal necrolysis—allopurinol; sulfonamides; penicillin; phenothiazines.
- Erythema multiforme—hydantoins; griseofulvin; penicillin; phenothiazines.

These toxic eruptions may be benign, or they may be fatal. The most common toxic eruption with very low morbidity is the fixed drug reaction. The most severe toxic eruption, with high morbidity and mortality rate, is toxic epidermal necrolysis. In this eruption there is cleavage of the epidermis, with severe peeling of the skin, systemic toxicity, shock and, in 25-30% of patients, death. The drugs that generally induce this most severe drug reaction are sulfonamides, phenylbutazone, penicillin, aspirin, procaine, gold salts, hydantoin and allopurinol.

A toxic drug reaction similar to toxic epidermal necrolysis may be caused by a bacterial infection due to *Staphyloccus* (Phage Type 71), carbon monoxide poisoning, lymphoma, vaccination or radiotherapy. An occasional patient will have intercellular antibodies G and M and complement in the basal cell layer of the epidermis; but because this is not a consistent finding, this eruption is classified as a toxic eruption. When the eruption is due to *Staphyloccus aureus,* it occurs primarily in children and the elderly; in adults the disease is usually drug-related.

The fixed drug eruption presents clinically as a round plaque, usually red or purple in color and always recurring in the same location. The mechanism for this eruption is unknown. There are many drugs that will cause this recurrent eruption: acetyl salicylic acid, aminopyrine, quinacrine, barbiturates, bromides, diphenylhydantoin, phenylbutazone, quinidine, sulfonamides and tetracycline.

## Phototoxicity and Photo Allergy

There are many chemicals which can combine with proteins or protein components in the skin and thus alter the capacity of the skin to react to one of the ultraviolet wave lengths, usually UVA 3200-4000 A°. This alteration may result in a photosensitivity reaction.

Phototoxicity is dose-related. The morphologic characteristics are 1) urticaria or 2) an exaggerated sunburn reaction occurring 6-8 hours after exposure to sunlight. The latter may occur with tetracycline therapy, and psoralen therapy will produce this exag-

Table 3. In Vitro Testing: Diagnosing Drug Reactions.

| Type of Reaction | IF[1] | RAST[2] | Hemagglutination[3] | LHR[4] | LTT[5] | MIF[6] |
|---|---|---|---|---|---|---|
| Type I | − | + | − | + | + | + |
| Type II | + | − | ± | − | − | − |
| Type III | ± | − | + | ± | ± | ± |
| Type IV | − | − | − | + | + | + |

1. Immunofluorescent—antibody coating epidermal cells; toxic epidermal necrolysis
2. Radio-Allergo—sorption test; positive in urticaria due to penicillin
3. Hemagglutination—due to IgG and IgM; positive in serum of persons with penicillin reactions
4. Leukocyte histamine release
5. Lymphocyte transformation test
6. Migration inhibitory factor

gerated sunburn reaction 48 hours after exposure.

Photoallergy is a cutaneous reaction to a drug or chemical plus ultraviolet light, and an immune mechanism can be demonstrated. Only a minority of persons will react in this manner, and these are genetically determined. The only proven examples of photoallergy have resulted from topical applications of sulfonamides, halogenated salicylanilides, and chlorpromazine. Most photo drug reactions are photosensitive reactions without proven mechanism.

The commonly used drugs that may produce photosensitivity are antidiabetic drugs (i.e., tolbutamide and chlorpropamide); anesthetics (procaine); antibiotics (tetracycline, griseofulvin); antihistamines (diphenhydramine hydrochloride); hormonal substances (estrone and diethylstilbestrol); phenothiazines; psoralens; (diuretics) thiazides; sulfonamides; and nalidixic acid.

## Diagnostic Tests

The laboratory confirmation of a drug reaction is often difficult. The differential diagnosis of the drug eruption includes viral or bacterial infection and a nonspecific release of histamine from mast calls by opiates, iodinated drugs, contrast materials, anesthetic agents or some antibiotics. Drugs such as tartrazine, mefenamic acid, indomethacin, aspirin and antipyrine may induce urticaria and asthma in a nonspecific manner. This nonspecific reaction is induced by histamine or bradykinin.

Several in vitro tests have been used to assess whether an eruption is due to a drug or to an infection or some other disease, and whether it is mediated by an allergic mechanism. They are shown in Table 3.

In using these in vitro tests, which are available only at certain university centers, one can often state

Table 4. Therapy for Drug Reactions.

| Type | Reaction | General Medicine | Specific Measures |
|---|---|---|---|
| I | Anaphylactic atopic reaction | Stop offending drug Hospital or emergency room | 0.3 ml 1:1000 epinephrine HCL repeated every 3–5 min. may need to give 0.1 cc or 0.2 cc IV |
| | | Tourniquet above point of injection | |
| | | Control shock | Antihistamine subcutaneously |
| | | Stop offending drug | Solu-Cortef 100–300 mg. or 40–80 mg. Solu-Medrol IV |
| | | | 0.25–0.5 gm. of aminophylline IV for coughing or wheezing |
| II | Topic epidermal necrolysis | Stop offending drug | Systemic prednisone 80–120 mg. |
| | | Good nursing care for the patient | |
| | | Topical antibiotics for broken skin | |
| III | Serum sickness | Stop offending drug | Aspirin systemic steroids 80–120 mg. prednisone per day |
| | | Bed rest | |
| | | Discontinue offending drug | |
| IV | Exfoliative | Stop offending drug | Systemic steroids 60–80 mg. of prednisone per day |
| | | Warm room | |
| | | Extra clothing | |
| | | Adequate fluid intake | |

that an allergic drug reaction has taken place, but the type of immune response in vitro (Types I-IV) cannot always be correlated with the clinical picture. False-positive responses are common, i.e., persons receiving the drugs in question may have in vitro reactions but no clinical manifestations of the sensitivity. In summary, complete reliance cannot be placed on laboratory procedures for diagnosing allergic reactions to drugs.

Skin testing with the offending drug is not practical in most situations. The one exception to this rule is the penicillin reaction. The scratch test using penicillin antigens is safer than the intracutaneous skin test. Diluted solutions of penicillin are used as antigens, and a positive wheal and flare, following a scratch or intradermal injections of the drug, provides evidence for the presence of skin-sensitizing IgE antibodies. The skin test data can be confirmed by the RAST test, which will give additional in vitro proof that antibodies to penicillin are present in the patient's serum.

Penicillin skin testing should be reserved for the patient who is to receive penicillin as an injection and who has a previous history of a penicillin reaction. If the patient is positive to scratch or intradermal penicillin or penicilloyl-polylysine test, a cutaneous drug reaction may be expected in 70 of 100 persons receiving the drug. The skin test itself may serve as the sensitizing dose of penicillin in the test subject. The hypersensitivity state and the ability of the person to develop a specific drug reaction is determined by the type of antibody produced as well as the proportion of the immunoglobulin in the serum and tissue. Cellular immunity may modulate the hypersensitivity state. The skin testing for penicillin sensitivity should include both penicilloyl-polylysine and penicillin G.

## Management

Prevention is at once the simplest and the most difficult approach to the treatment of all drug reactions. Obviously, drugs should be prescribed only as needed. Penicillin is one of the most allergenic drugs prescribed, yet one study demonstrated that only 50% of the persons dying of an anaphylactic reaction to penicillin needed the drug. Table 4 gives specific therapy for drug reactions.

## Summary

The skin is the most common organ involved in the adverse immune responses to drug antigens. All drugs are antigenic, but the structure of the drug, the history of previous exposure, the genetics of the individual and the general health of the patient help determine the cutaneous responses to these drugs. The morphologic response in the skin may be allergic and due to antibodies or cellular recognition, or toxic, without demonstrable serum or tissue antibodies. Skin tests are helpful in penicillin allergy, but not in other drug reactions. In general, serologic tests for drug sensitivity have limited value. The most important management technique is prevention. Three drugs are important in the management of the acute drug reaction: epinephrine, systemic steroids and antihistamines.

*References available on request.*

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# Photochemotherapy for Psoriasis: A Two-Year Study

David M. Pariser, MD, *Norfolk, Virginia*

A 90% success rate was achieved in the first 24 months of a study in which 37 patients were treated for psoriasis with oral methoxsalen and longwave ultraviolet light, and there was only one severe complication of the therapy. The author describes the study and analyzes the results.

FIRST described in its present form in 1974,[1] photochemotherapy of psoriasis with psoralen/ultraviolet light A (PUVA) is today widely accepted. According to one report,[2] in 1978 it was the treatment of choice for over 30,000 psoriasis patients. Several large studies have documented the safety and efficacy of this treatment.[3-10] In two recent studies, an increased incidence of skin cancer in patients with previous cancers or previous x-ray treatment for psoriasis was reported in one[11] but not the other.[12]

This paper describes a study of 37 patients treated with psoralen/ultraviolet light A.

This study was conducted according to the protocol, "Oral Methoxsalen Photochemotherapy of Psoriasis (PUVA)—A Clinical Trial at Medical Center Hospitals and Eastern Virginia Medical School, Norfolk, Virginia," Food and Drug Administration/Investigative New Drug No. 16,217. The cooperating investigators, in addition to the author, were Larry L. Legum, MD, Harry Pariser, MD, Robert J. Pariser, MD, and Arnold J. Schwartz, MD.

From the Department of Dermatology, Eastern Virginia Medical School, and Medical Center Hospitals, Norfolk. Address correspondence to the author at 406 Medical Tower, Norfolk VA 23507.

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**Patient Selection and Methods**

The first 24 months of study were conducted at Medical Center Hospitals, Norfolk, where 37 patients were admitted into the program. Thirty-four had stable plaque-type psoriasis involving 30% or more of the skin surface; one of these also had vitiligo involving 90% of the skin. One had erythrodermic psoriasis. Two were partially clear of psoriasis at the time of admission due to previous PUVA treatment elsewhere. All patients were examined by board-certified dermatologists, who made the selection of patients for the study.

The following classes of patients were excluded from the study: pregnant women, children under the age of 12, patients with light-sensitive diseases, cardiac patients, patients with histories of melanoma, aphakics or patients with significant cataracts, and patients who were taking any potentially photosensitizing drugs or systemic cytotoxic agents.

All patients were fully informed about the potential risks and benefits of the treatment and signed consent forms. All patients were instructed regarding skin and eye protection and were required to wear protective sunglasses for eight hours following the ingestion of the psoralen.

An ophthalmologic examination was performed on patients prior to treatment and was repeated after three months. Blood count and liver function tests were performed prior to treatment and also repeated after three months. Patients who had completed one year of treatment had a repeat ophthalmologic examination and blood work at the end of that year.

The type of psoralen used in the study was methoxsalen (Oxsoralen®). The initial dose was based on the patient's weight, as follows:

| | | |
|---|---|---|
| under 30 kg | under 65 lbs | 10 mg |
| 30-50 kg | 66-110 lbs | 20 mg |
| 51-65 kg | 111-145 lbs | 30 mg |
| 66-80 kg | 146-175 lbs | 40 mg |
| 81-90 kg | 176-200 lbs | 50 mg |
| 91-115 kg | 201-250 lbs | 60 mg |
| over 115 kg | over 250 lbs | 70 mg |

The light source used was the high intensity ultraviolet light A system manufactured by the Dermacontrol Company, Dolton, Illinois. This system contains 56 72-inch flourescent tubes arranged in a vertical fashion in a cabinet that delivers the light to the entire skin surface in a uniform fashion.

**Treatment Schedules**

All exposures were given between 2 hours and 2 hours 15 minutes after ingestion of the methoxsalen. The first ultraviolet dose was based on the patient's skin type as follows:

| Skin Type | History | Joules/cm$^2$ |
|---|---|---|
| I | Always burn, never tan | 0.5 |
| II | Always burn, sometimes tan | 1.0 |
| III | Sometimes burn, always tan | 1.5 |
| IV | Never burn, always tan | 2.0 |
| | Physical Examination | |
| V | Moderately pigmented | 2.5 |
| VI | Blacks | 3.0 |

After the first treatment, patients were treated either two or three times a week at the discretion of the investigators responsible for their care. After the first ultraviolet exposure, the dose was raised for each subsequent exposure as follows:

Skin Type I: 0.5 joule/cm$^2$ increase for each exposure
Skin Type II, III, IV and V: 1.0 joule/cm$^2$ increase for each exposure
Skin Type VI: 1.5 joule/cm$^2$ increase for each exposure

The exposure was not raised if erythema occurred or if the patient missed a treatment. If more than one consecutive treatment was missed, the exposure was reduced. After clearing occurred, each patient began the maintenance schedule. During maintenance, the dose of light was not increased, and the treatments were reduced to once weekly, and then less frequently, or, if some psoriasis flared, the treatments were held at the maintenance level. If psoriasis flared during maintenance therapy, the frequency and/or intensity of the treatments was increased.

If the extremities were not responding as well as the rest of the body, an additional exposure of up to one-fourth of the total dose of ultraviolet for that exposure was permitted to the less responsive areas.

During the treatments, patients were allowed to use emolients but were discouraged from using any active topical agents. No systemic therapy for psoriasis was allowed.

All treatments were administered by physical therapists at Leigh Memorial Hospital, Norfolk, a division of Medical Center Hospitals.

**Results**

Of the 37 patients treated during the 24-month period between June 20, 1979, and June 19, 1981, two patients had had PUVA treatments at another center and were simply continued on maintenance treatment; two patients were treated irregularly due to poor patient compliance and never reached 95% clearing; one patient was enrolled in the study shortly before the end of the two-year period and had not yet achieved clearing; and three patients stopped treatment due to excessive photosensitivity.

Of the 30 patients who started treatment and continued it according to the protocol, 27 showed a 95% or greater clearing. Thus 90% of the patients who completed treatment according to the protocol experienced clearing of their psoriasis. Of these 27, ten have dropped out of the program—seven for financial reasons, one moved out of the area and two stopped for unknown reasons.

The following table summarizes the results:

| Skin Type | No. | Rxs to Clear | Joules to Clear | Maintenance Dose |
|---|---|---|---|---|
| I & II | 4 | 24 | 280 | 17 j/cm$^2$ |
| III | 18 | 22.5 | 246 | 23 j/cm$^2$ |
| IV | 4 | 23.5 | 226 | 22 j/cm$^2$ |
| V & VI | 2 | 52 | 1557 | 49 j/cm$^2$ |

**Complications of Therapy**

Erythema from excessive photosensitivity was the most common complication of therapy. Twelve of the 37 patients (32%) experienced some degree of erythema at least once during the course of their treatment, requiring a delay in the increase of the dose of ultraviolet light. Three episodes of photosensitivity leading to blistering occurred. Two of these patients withdrew from the program following the episode of blistering. The patients who experienced erythema from the treatment were not inconvenienced by it, and there was no lasting morbidity associated with this complication.

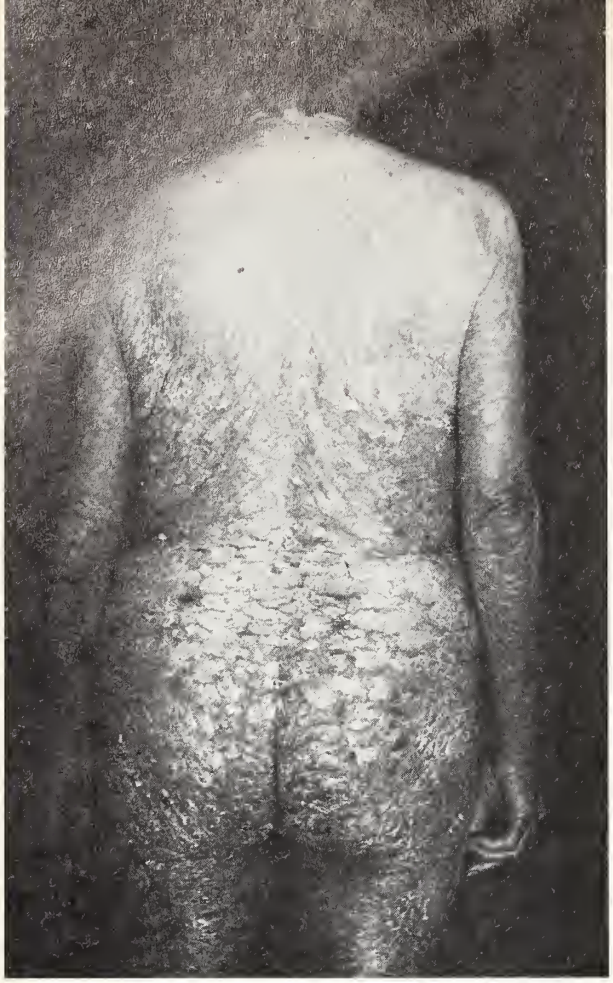

**Fig. 1. Patient with severe exfoliative psoriasis involving almost 100% of skin surface. Note prominent scaling, hyperkeratosis and fissuring.**

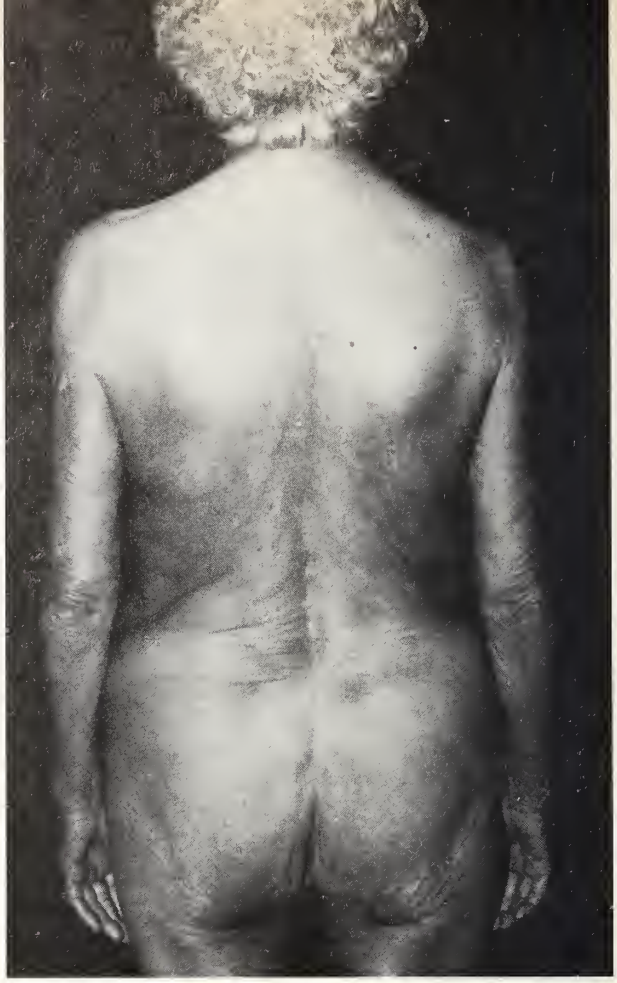

**Fig. 2. Same patient after 17 photochemotherapy treatments. Skin was returned to normal and remained clear on maintenance therapy.**

Pruritus occurred in six of the 37 patients (16%). Antihistamines were prescribed for relief of the pruritus. This complication was minor and did not deter any patients from completing the treatments.

Nausea was reported by five of the 37 patients (13%). This complication was relatively well managed by one of the following means: 1) Patients were instructed not to take the medication on an empty stomach. 2) If necessary, the dose of methoxsalen was divided so that one-half of the dose of methoxsalen was divided so that one-half of the dose was taken 90 minutes before the treatment. 3) Occasionally trimethobenzamide (Tigan®), 250 mg, was administered with the methoxsalen.

One patient entered the treatment program after suffering an apparent case of hepatotoxicity from PUVA treatment administered at another center.[13] Because of the presumed psoralen-induced liver damage, she was treated at our center with topical psoralen (0.5% methoxsalen in hydrophilic ointment). The dose of ultraviolet light A used for this patient was held to below that used for the other patients because of a high degree of photosensitivity, resulting in several episodes of blistering. This patient has done very well with the topical methoxsalen photochemotherapy, is now more than 95% clear of psoriasis, and is receiving treatments on a maintenance schedule.

No other liver function abnormalities were detected in our group of patients during the two-year period. There were no cases of ophthalmologic complications, and no skin cancers developed.

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*Concluded on page 548.*

# Cancer Trends: Diagnosis and Treatment of Cancer of the Pancreas

James J. Stark, MD, *Norfolk, Virginia*

As the incidence of pancreatic cancer increases, its prognosis continues poor, but new approaches in treatment enhance diagnostic techniques, create comforting palliative procedures, and promise illumination of future curative techniques.

DESPITE recent advances in diagnosis and therapy, cancer of the pancreas continues to be a lethal disease. The fourth most common cause of cancer death[1], pancreatic cancer kills up to 99% of its victims.[2,3] Recent advances in treatment have begun to shed light, however, on new approaches which offer promise for the future.

Until fairly recently, the diagnosis of pancreatic cancer was made only at laparotomy, and then little was done to attempt to palliate the patient. The recent revolution in diagnostic radiology has obviated in most cases the need for surgery solely for diagnosis. Ultrasonography and computerized tomography have become the studies of choice in screening patients for pancreatic cancer. CT has an accuracy rate of 60-90%;[4] skinny needle aspiration cytology under ultrasound or CT guidance provides a safe way to make the diagnosis of malignancy without open biopsy.[5]

The role of angiography and endoscopic retrograde cholangiopancreatography (ERCP) is less well defined.[6] When positive for a mass and tumor blush, angiography is quite specific; however, the overall accuracy rate is probably lower than CT, and the procedure is more hazardous. The angiographic demonstration of variant vascular anatomy is said to be useful to some surgeons in preoperative planning. ERCP can frequently help distinguish cancer from pancreatitis and when combined with cytologic examination of pancreatic juice is very accurate.[7] Most experts in the field agree, however, that ultrasound and CT are still more useful initial studies because they are so much less invasive than either angiography or ERCP. Which of the two tests to order initially

From the Division of Hematology-Oncology, Department of Internal Medicine, Eastern Virginia Medical School. Address correspondence to the author at 844 Kempsville Road, Norfolk VA 23502.

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depends largely on the availability of experienced ultrasonographers and/or CT equipment.

Tumor markers such as carcinoembryonic antigen (CEA) have proven extremely useful in monitoring therapy in patients with known malignancy. As screening tests, i.e., in looking for cancer in the general population, they are, however, almost worthless. The pancreatic oncofetal antigen (POA), a dedifferentiation antigen similar to CEA, is frequently positive in patients with pancreatic carcinoma; however, the incidence of false negatives plus the relative infrequency of the disease make the test unreliable as a screening test and extremely cost ineffective. Eighty percent of patients with pancreatic cancer have an elevated CEA or POA or both.[8] The strategic benefit to the patient of a positive finding, however, has not been established.

Once the diagnosis of pancreatic cancer is made, the surgeon must decide whether the patient is a candidate for attempted cure. Although lesions may appear localized by all of the above studies, the results of radical surgery suggest that the vast majority of patients are truly incurable at the time of diagnosis.[2,3] Excluding carcinoma of the duodenum, ampulla of vater and endocrine (e.g., islet cell) tumors—all of which are frequently grouped with ductal adenocarcinoma in surgical series—the cure rate from surgery in operable pancreatic carcinoma (a small minority of total cases) is less than 10%. The current debate regarding the Whipple procedure versus total pancreatectomy must be viewed in this light.[2]

Failures following surgery with curative intent for ductal carcinoma of the pancreas are of two types: early technical complications—anastamotic leak, intra-abdominal sepsis and hemorrhage—and late failure due to metastatic disease. Most patients who survive the surgery die of widespread intra-abdominal and hematogenous metastases.

The decision to attempt to cure or only palliate is often made at the time of exploratory laparotomy. Only after a thorough abdominal exploration looking for peritoneal seeding, and examination of the caudate lobe of the liver, retroperitoneal structures, posterior stomach, porta hepatis and regional nodes seeking evidence of disease, can the patient be considered potentially curable. The majority of patients explored in this manner will be found to be unresectable for cure.

In the face of such a dismal outlook how can the physician approach meaningfully the patient with carcinoma of the pancreas? Fortunately, approaches have been developed which offer some hope of prolonging life and temporarily relieving suffering.

Biliary obstruction is a major early complication and duodenal obstruction a major late complication of pancreatic cancer. Palliative biliary and duodenal bypass at the time of diagnosis can ensure the continued flow of bile and food for the rest of the patient's life. These can be performed without the risks associated with major extirpative pancreatic surgery. Occasionally, when tumor invades the porta hepatis and effective internal biliary drainage cannot be created, external drainage via a transhepatic percutaneous catheter can be achieved. After radiotherapy and chemotherapy, conversion from external to internal drainage can sometimes be achieved by cannulating the duodenum with the same percutaneous transhepatic catheter.[9]

The role of palliative radiotherapy has evolved in two different directions. A small but aggressive group of therapists has been exploring the role of intra-operative radiation—either external beam or interstitial implantation—to the exposed but surgical incurable tumor. Median survival of patients treated with implantation is six to 12 months, somewhat longer than is seen with exploration and bypass alone. Excellent palliation of pain is achieved in 80% of patients.[10]

The success rate with the other major radiotherapeutic approach, conventional external beam, is quite variable. Some investigators believe that the different results achieved may be explicable by variation in therapeutic dose and technique.[11] Clearly, external beam radiation can produce palliation in some patients. Series in which higher doses (6000-6500 rads) were used had better results. In one study 26% of patients with localized but unresectable disease were alive at 24 months;[11] the median survival for the entire group was 12 months. This experience compares favorably with that of radical surgery.

The addition of chemotherapy to radiation in localized unresectable cancer of the pancreas seems to have improved the duration of survival when compared with radiation alone. Childs and, subsequently, the gastrointestinal tumor study group (GITSG)[10] showed in randomized prospective trials that the addition of 5-fluorouracil to radiation therapy improves survival. Childs found that mean survival was increased from six to ten months by the addition of moderate doses of 5-fluorouracil (15 mg/kg/day X 3 days) to moderate doses of radiation (3500-4000 rads). The GITSG reported a doubling of survival with either 4000 or 6000 rads plus 5-fluorouracil compared to 6000 R alone.[10] Nonetheless, practically all the patients so treated were dead in three years, frequently of disseminated disease outside the radiation portal.

Combination chemotherapy has been used in attempts to palliate and prolong survival in patients

with disease that cannot be encompassed in a radiation portal.[12] There are various combinations currently in vogue, the most popular of which employes 5-fluorouracil, adriamycin and mitomycin C. Objective response rates of about 40% (complete plus partial responses) have been seen by several investigators. Overall survival, however, is still not very impressive, with most patients still dying within a year of initiation of therapy. Preliminary data do suggest that responders live longer than non-responders[12,13]—a traditional mark of efficacy in the chemotherapy of advanced solid tumors. Intensive work to develop new active agents and drug combinations is underway. Combined modality therapy using radiation and new active drugs is a logical next step.

These preliminary successes with palliating pancreatic carcinoma suggest that major breakthroughs are possible. Challenges for the future include the development of better markers to detect early disease, more effective and less toxic local therapy, and better systemic adjuvant chemotherapy to prevent dissemination after successful local therapy.

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## CANCER TRENDS COMMENT

Cancer of the pancreas presents a serious problem because of its increasing incidence and poor prognosis. Despite newer and more sophisticated diagnostic modalities, we are still not able to find this malignant lesion soon enough to effect a cure except in a very small group of patients. We have recently reviewed our experience with 200 patients with perampullary carcinoma at the Medical College of Virginia from 1967-1978. There were 55 patients who underwent resections, 39 pancreatoduodenectomies (Whipple procedure) and 16 total pancreatectomies; 115 had a single (biliary) or double (biliary and gastroduodenal) bypass, and 30 had surgical exploration and biopsy only. We made the following observations from our experience: 1) patients who had any lymph nodes with metastases present, even though these nodes (parapancreatic) would be removed by the usual resection, should not have surgical resection since we had no five-year survivors in this group; 2) patients with metastatic disease and biliary obstruction are best treated by non-operative techniques of biopsy and percutaneous transhepatic internal biliary drainage when feasible; 3) patients with biliary obstruction who are not resectable and are candidates for a bypass procedure should have both a biliary and gastroduodenal bypass performed; 4) a definite incidence of multicentricity, three of 13 (23%), was found in those patients with ductal carcinoma of the pancreas who had total pancreatectomies; 5) significant diabetic problems arose in some patients who had total pancreatectomies; 6) primary site of the lesion and the intelligence and socioeconomic background of the patient should dictate the type of resection employed; and 7) total pancreatectomy is appropriate in selected patients with ductal carcinoma of the pancreas, and a pancreatoduodenectomy (Whipple procedure) is recommended for the other periampullary cancers.

I appreciate Dr. Stark's comprehensive view of this important problem. He has clearly presented the current "state of the art" regarding diagnosis and treatment. I agree that major breakthroughs are possible. We desperately need them to enable us to treat more effectively our patients who have cancer of the pancreas.

J. SHELTON HORSLEY, III, MD

# Recognizing and Managing Acute Lower Extremity Thrombosis

Thomas M. Daniel, MD, *Richmond, Virginia*

Acute lower extremity thromboembolism continues to carry a high postoperative mortality rate, as shown by a two-year review of consecutive cases. The author discusses the basic pathophysiology of the disease and its operative complications and outlines a regimen for individualizing the management of patients with this problem.

THE INTRODUCTION in 1967 of the Fogarty arterial catheter into treatment for acute thromboembolic disease (ATD) has been followed by an average limb salvage of approximately 82%, but mortality percentages have remained unchanged at approximately 25%.[1] These statistics indicate that 43% of all patients with acute thromboembolic disease of the lower extremity will lose either life for limb or both under current management.

Atherosclerotic vascular disease not only accounts for an increasing percentage of patients suffering from acute thromboembolic disease of the lower extremity but there is a higher incidence of the clinical entity itself due to the increase in the geriatric population. Hight[2] documented an increase in atherosclerotic etiology in patients with emboli from 40% in 1948 to 67% in 1973. (During this time, the proportion of patients in his series with rheumatic heart disease fell from 60% to 33%.) Blaisdell[3] found that cardiopulmonary causes accounted for 53% of deaths, pulmonary embolism 11% and stroke 8%. Only 4% were the result of recurrent emboli.

From the Departments of Surgery, Johnston-Willis Hospital and Chippenham Hospital, Richmond. Address correspondence to Dr. Daniel at 7129 Jahnke Road, Richmond VA 23225.

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There were 18 cases of acute lower extremity thromboembolism at Johnston-Willis and Chippenham Hospitals in Richmond from January 1978 to December 1979. The limb salvage rate was 72% and the mortality rate was 17%. The patients' ages ranged from 36 to 88 years, with one-third of the group less than 56 years of age. The arterial occlusion time ranged from 2 to 30 hours.

**Case Reports**

*Case 1.* a 36-year-old male presented with acute onset of anesthesia and loss of motor function in both lower extremities while at work. He described no prior history of claudication or known heart disease. Subsequent thrombectomy six hours following the onset of symptoms was followed by transient pulmonary insufficiency and myoglobin nephropathy and the ultimate loss of one limb. An arteriogram was obtained prior to thrombectomy in order to further clarify the origin and level of the thrombotic process. This case illustrates the rapidity of onset of irrevers-

ible muscle damage in sudden acute arterial occlusion without any prior stimulus to develop collateral blood supply. The presence of muscle rigidity in the limb subsequently lost—in addition to the absence of motor and sensory function—was a very grave sign, and preoperative time-consuming angiography looking for etiology in such a young patient only compounded the clinical problem.

*Case 2.* A 74-year-old male presented with the onset of pain in a lower extremity followed six hours later by complete onset of anesthesia and loss of motor function. In spite of the fact that a thrombectomy was carried out 30 hours after the onset of these symptoms, careful management in the intensive care unit with good hydration, anticoagulants, fasciotomy, and meticulous attention to the patient's cardiovascular status played a part in the ultimate survival of a viable leg.

*Case 3.* A 61-year-old male in congestive heart failure developed an acutely thrombosed lower extremity. Thrombectomy was performed within six hours of the onset of his initial symptoms, but in spite of excellent back-flow and the restoration of a pulse, a respiratory arrest ensued one-half hour after surgery. The patient died 24 hours later with a viable leg. This case illustrates the not infrequent phenomenon of improvement of limb perfusion at the price of a dramatic worsening of the patient's overall condition, in this case the patient's very life.

It is apparent from these selected cases that time alone is not a reliable criterion upon which to make the judgment of limb survival, and the operative procedure of thrombectomy itself, even though done under local anesthesia, can be associated with worsening of the patient's clinical condition. These cases also illustrate the highly variable course of the illness, depending not so much on length or level of occlusion but on the patient's underlying clinical condition.

**Discussion**

Clinical and laboratory data suggest that eight hours is the maximum time for reversible changes in *total* limb ischemia. Since partial limb ischemia states are so common, however, each case must be judged individually, and time alone is an unreliable index. Blaisdell and others[3] described distal arterial spasm occurring in the first six hours after total occlusion. This may be a protective reaction in that small vessel thrombosis is inhibited by the spasm. Only when ischemic injury to the smooth muscle of the vessel wall occurs after 6-8 hours does vasodilation and relaxation of the spasm ensue. It is theorized that irreversible microvascular clotting has occurred by 8 hours. Skeletal muscle injury begins to occur at two hours, with subsequent fasciculations and ultimate rigidity within 6-8 hours in a state of total arterial occlusion. These data are not reliable for clinical states of partial occlusion or where preexistent atherosclerotic disease has allowed some marginal collateral flow to develop.

The systemic insult experienced by a patient following thrombectomy in the setting of prolonged distal ischemia is described by Fisher.[4] Sampling femoral venous effluent at the time of arterial thrombectomy in the legs of four patients with advanced ischemic changes, Fisher noted a pH drop from 7.33 to 7.07 when femoral venous blood was sampled five minutes after restoration of arterial flow to the extremity. The femoral venous $pCO_2$ rose during this time from 41 to 76, potassium from 4.2 to 5.7, and CPK from 190 to 456. Stallone[5] described extensive fibrin platelet pulmonary microemboli in the autopsied lungs of five out of nine patients dying within five days of arterial thromboembolectomy. These patients had presented, prior to death, a clinical picture of progressive pulmonary insufficiency and low cardiac output after embolectomy. In a discussion of his experience,[3] Van De Water described with high incidence of low cardiac output in his patients with acute thromboembolic disease and recommended routine postoperative use of Swan-Ganz catheter monitoring.

The underlying severity of the atherosclerotic process in patients with thromboembolic disease is dramatized by the report of Hight[2]. In his series, at the end of two years only 54% of the patients who had had embolectomies were still alive.

Current reports in the vascular literature appear contradictory over the place of immediate thromboembolectomy. One advocates heparinization and delayed surgery while another makes a case for thrombectomy even though symptoms may have been present for greater than 12 days. For acute embolic disease, Blaisdell[3] in 1978 advocated 20,000 units of heparin intravenously, followed by 2,000-4,000 units per hour, with consideration of surgery after one week's treatment. Patients with muscle rigidity or early gangrenous changes underwent immediate amputation; thrombectomy was not attempted. Twenty-nine patients in his series were treated with heparinization, six with amputation, and 17 with immediate thrombectomy. He described a mortality rate of only 7.5%, less than one-thrid of the mortality from most current series. His limb salvage rate was 67%.

Jarrett[6] in 1979 reported operating on 22 patients an average of 12½ days after the onset of acute

changes in lower extremity symptoms. In 59%, Fogarty thrombectomy restored distal pulses, and in an additional 18% viable lower extremities were achieved although pedal pulses were not present. Of note is that these patients described acute increases in claudication or limb pain and none described acute motor loss or anesthesia. Jarrett pointed out, however, that acute thrombosis or embolus can occur in the presence of underlying disease and often not become apparent until an arteriogram has been performed.

From the preceding discussion it can be seen that acute thromboembolic disease can be the presenting symptom of several quite different clinical entities, each one requiring a different approach for maximum patient survival and limb salvage. The following sub-groupings are suggested at the time of the initial physical examination of the patient with this condition.

1. *Total or subtotal occlusion of an extremity in a patient with known cardiac disease and possible low perfusion state.* In this setting, immediate heparinization and emergency cardiology consultation with preoperative Swan-Ganz insertion and time spent improving cardiopulmonary status is indicated for maximum patient survival. If muscle rigidity is present on the initial examination and there is loss of passive movement of the foot, strong consideration should be entertained for immediate amputation and no thrombectomy attempt. Case 3 illustrates this clinical picture.

2. *Total occlusion in an ambulatory patient with rheumatic heart disease or one in whom other cardiac disease has not been established previously.* In this group, patient mortality is much less likely and limb salvage of higher priority. Immediate heparinization and immediate attempted thrombectomy without angiography followed by close monitoring during and after surgery for renal, cardiac and pulmonary complications is indicated. A delay for even an hour in getting these patients to surgery can dramatically reduce salvage results. Case 1 illustrates this course.

3. *Subtotal occlusion with some suggestion of return of function present at the initial clinical examination.* The best course of action would be immediate heparinization and elective angiography and the evaluation of the patient's cardiopulmonary status.

**Table 1. Proposed Management of Acute Lower Extremity Thromboembolism.**

| | | |
|---|---|---|
| Immediate surgical examination assessing: | →heparin→ | Swan-Ganz and evaluation of cardiac status |
| Pain | | or |
| Pulses absent | | immediate thrombectomy |
| Pallor | | or |
| Anesthesia | | angiogram→semi-emergency thrombectomy |
| Skin mottling | | or |
| Fasciculations present | | immediate amputation |
| Active foot flexion lost | | Note: All patients to ICU, with cardiopulmonary and renal monitoring. |
| Passive foot flexion lost | | |
| Muscle rigidity | | |
| Proximal gangrene | | |

## Summary

In summary, the proposed management of acute thromboembolic disease would start with immediate examination, including a detailed history of recent leg symptoms and a painstaking physical examination, not only for sensory and motor loss but for more subtle findings, such as the presence or absence of passive foot flexion, muscle fasciculations or muscle rigidity (Table 1). Immediate heparinization of all groups except those in whom amputation is to be done would then be followed by a decision as to whether cardiac status was a primary risk factor and whether time should be allowed for improvement in this aspect, or whether immediate thrombectomy or elective angiography with semi-emergency thrombectomy would be best. Regardless of choice, all patients would best be handled in an intensive care unit with cardiac, pulmonary and renal monitoring. By careful selection of treatment, with immediate surgery for some, immediate preoperative cardiopulmonary evaluation for others, and immediate amputation or delayed surgery for a third group, the present hospital mortality rate of 25% might be reduced.

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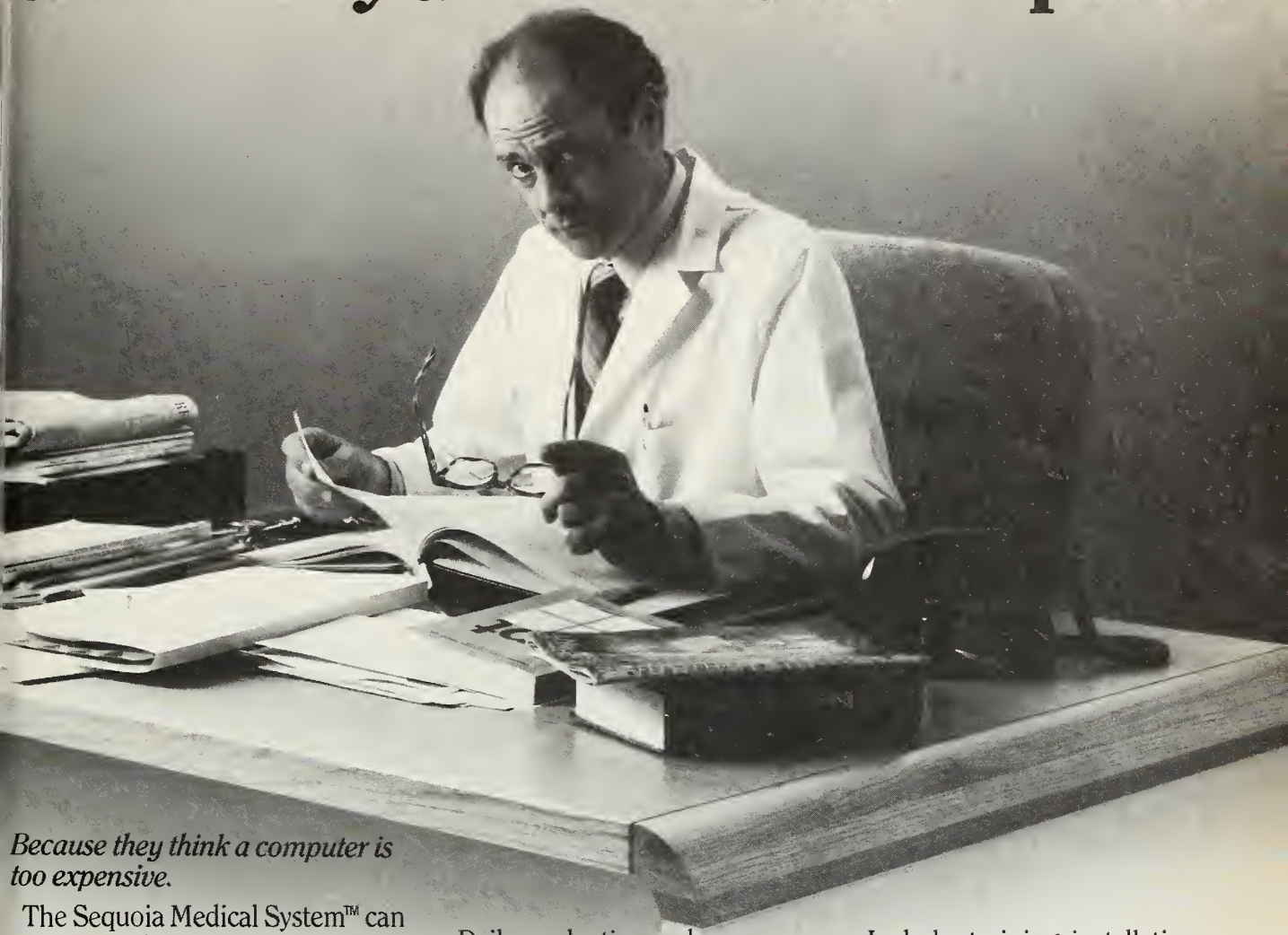

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**Contraindications** Contraindicated in individuals with history of an allergic reaction to penicillins.

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**Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.**

**Precautions** Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

**Adverse Reactions** Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
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Cyclacillin is not indicated in children under 2 months of age.
*Patients with Renal Failure* Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
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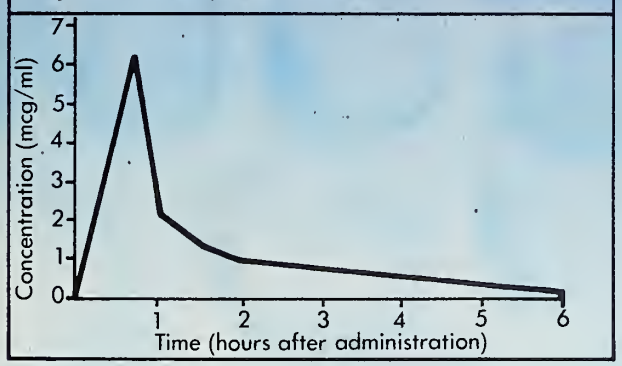


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ABNORMALLY profuse sweating from the armpits, axillary hyperhidrosis, causes extreme embarrassment and inconvenience to those afflicted. It affects males and females equally, although women are far more likely to complain of it, is not associated with a strong malodor (bromhidrosis), and is rarely unilateral.

Axillary hyperhidrosis results from an excessive secretion of the eccrine glands, which are grossly and microscopically indistinguishable from those of normal individuals. The age of onset is at or beyond puberty. The secretion is watery and nonodorous as compared to that of the apocrine glands, which is thick, milky and has a characteristic odor.[1]

Dress shields, antiperspirants, sedation, anticholinergic agents or sympathectomy are ineffective in severe cases, but excision of the skin of the axilla have proved to be an effective, permanent cure of this condition.[2,3] Less radical techniques of excision have given initial good results but disappointing return of the sweating after three months. Hurley and Shelley[3] found that 70-80% of the eccrine glands are situated within a small area in the dome of the axilla and correspond very closely to the hairbearing area. Seen histologically, the sweat glands extend into the subcutaneous fat; therefore, adequate excision must include subcutaneous fat.

The relaxed skin tension lines (RSTL)[4] on the axilla run transverse to the long axis of the arm, while the tissue to be excised is in the shape of an ellipse whose long axis runs in a longitudinal direction. Therefore, if the skin defect is closed in a straight advancement fashion in the direction of the short axis, a longitudinal scar is obtained that could hinder abduction of the arm. To circumvent this disadvantage, Greeley[5] performed a Z-plasty in closing a similar skin defect in a patient being treated for chronic axillary hyperhidrosis. Bretteville-Jensen[6] also used the Z-plasty technique but in 1976 changed to a W-plastic technique.

The W-plasty fusiform excision is a preferable alternative in excising a skin lesion whose long axis is at a right angle to the relaxed skin tension lines. The technique consists of removal of skin within serrated skin borders and the subsequent closure of the defect by direct approximation. The tip or salient angle of each triangular flap is sutured into the triangular notch or recessed angle of the opposite side. The W-plastic technique is preferable to the Z-plasty because it requires less undermining of skin, thus providing less chance of bleeding, hematoma or dehiscense. Also, more of the involved integuments responsible for the hyperhidrosis can be excised, and then the defect can be closed with relative ease.

The operation can be done as an outpatient procedure. The patient is told not to shave the axillae for two weeks prior to surgery, so that the area where most of the eccrine sweat glands are located can be easily found. The locations of the zigzag incisions are drawn on each side of the tissue to be removed (Fig. 1). Each segment measures 3 to 4 cm in length, and the segments are separated from each other by approximately 90° angles. Note that the base of the first triangle lies on a line perpendicular to the long axis

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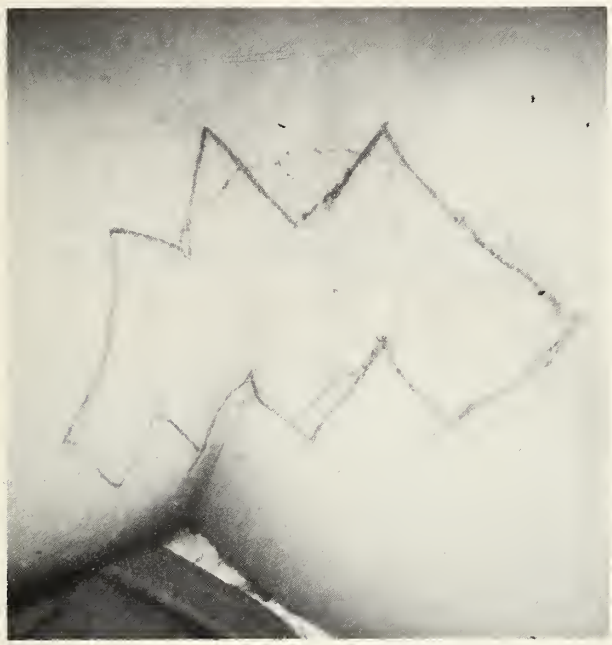

Fig. 1

Fig. 2

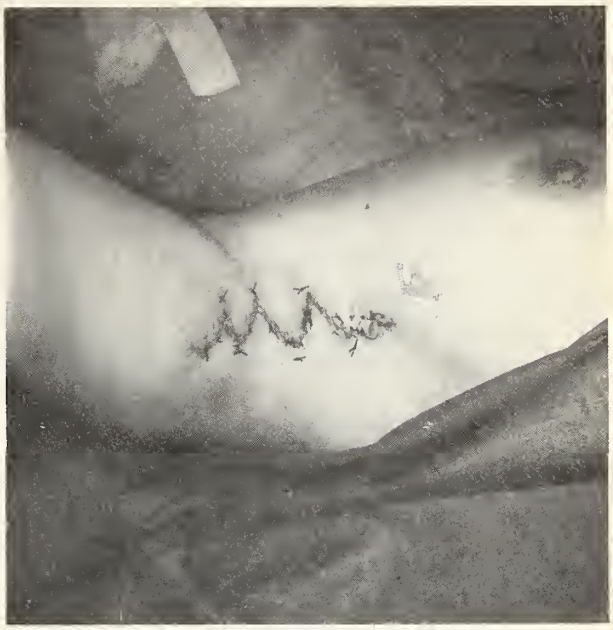

Fig. 3

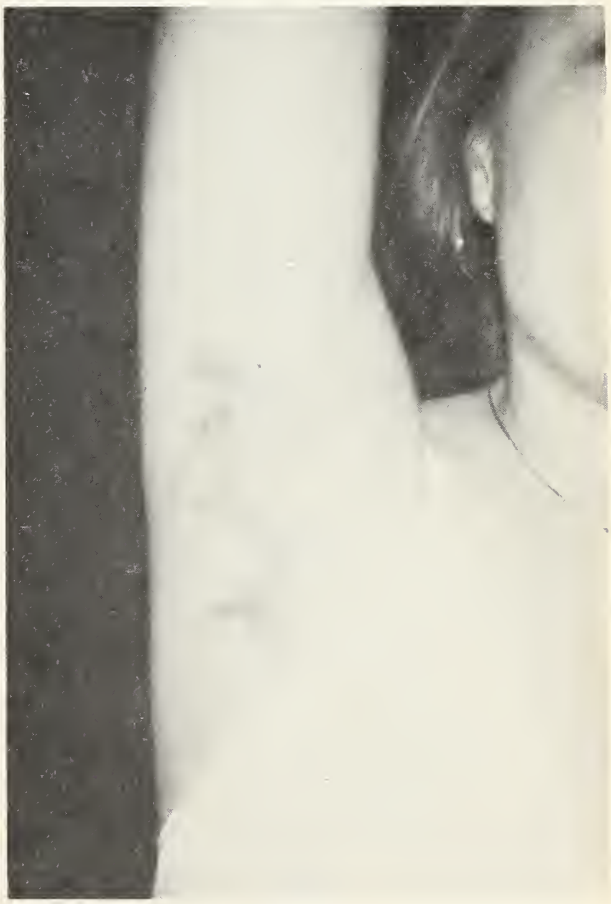

Fig. 4

of the hairy skin. Some hairy skin, with eccrine glands, is left attached to the tips of the triangular border flaps, and some nonhairy skin, without eccrine glands, is removed at the recessed angles of the excision to prevent creation of a skin defect too wide for direct approximation of its borders (Fig. 2).

Following the excision, the skin borders are undermined up to the base of the triangular flaps. Approximation is started with 3-0 or 4-0 black braided silk in horizontal mattress fashion. Final coaptation is done with a continuous cross-stitch 5-0 nylon suture.[4] Sutures are left in for 10 to 14 days, since skin tension is so great that wound disruption could occur if they were taken out any sooner (Fig. 3).

Minimum postoperative care is required, and the patient's daily activities are only briefly interrupted. Skin tension of the scar will widen it, and the redness will be slow to fade. Because of the accordion-like elasticity of the zigzag scar, there will be no tightness at full abduction of the arm (Fig 4), and the scars are not visible unless the patient raises her arms.

In Bretteville-Jensen's series of 123 patients[7] who had radical axillary sweat gland ablation, 116 (94%) became as dry or drier than normal and were satisfied with the results of the operation. The other seven (6%) had less than a 50% sweat reduction and were unhappy over the outcome. Complications were very few; there was bleeding from one side in two cases, requiring exploration and extra sutures, and one case with bilateral pseudomonas infection and wound dehiscence.

The photographs accompanying this report are of a 28-year-old woman who was our patient for the W-plastic procedure. She had suffered from axillary hyperhidrosis all her life.

After the treatment described, she was able to wear any type of clothing without underarm staining and remained free of excessive sweating at followup one year after surgery.

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# Pericardial Effusion in Sickle Cell Anemia: A Rare Problem

William W. Hurd, MD, Joel B. Miller, MD, and Richard E. Katholi, MD,
*Charlottesville, Virginia*

PERICARDIAL involvement per se is not a manifestation of sickle cell anemia. While pericarditis of various etiologies has occasionally been described in association with this disease,[1–5] pericardial effusion in patients with sickle cell anemia has been reported in only three patients.[6,7] We report three patients with sickle cell anemia who were found to have a pericardial effusion by echocardiography. In each case the clinical management included a pericardiocentesis, which led to a fatal outcome. Review of the clinical and necropsy data suggests that cautious management of pericardial effusion is required in patients with sickle cell anemia.

**Case Reports**

Patient #1 was a 38-year-old man admitted complaining of facial swelling, malaise and fever with chills. Because of persistent unexplained fever and the finding of anergy to skin testing in a patient with an unexplained increasing pericardial effusion, a diagnostic pericardiocentesis was carried out under electrocardiographic (ECG) monitoring, using a subxyphoid approach. Five ml of clear, straw-colored fluid was initially withdrawn, followed by 75 ml of bloody fluid and concomitant ST segment elevation on ECG suggesting epicardial injury. Within two hours the patient became unresponsive and hypotensive and resuscitative efforts, including open chest pericardial window with removal of 700 ml of nonclotting bloody fluid, were unsuccessful.

Patient #2 was a 15-year-old girl complaining of fever and dyspnea who on admission was found to have massive cardiomegaly, compared to previous films, due to a large pericardial effusion. The following day the patient's condition suddenly deteriorated, consistent with cardiac tamponade. An ECG-monitored pericardiocentesis using a subxyphoid approach was undertaken but only four ml of serosanguinous fluid was removed with no ECG changes noted. Before further definitive treatment was undertaken the patient became unresponsive and apneic. Resuscitative efforts were unsuccessful, including opening the pericardium with removal of 500 ml of rusty-colored fluid followed by bright red blood.

Patient #3 was a 9-year-old boy admitted with acute renal failure and aplastic crisis. After two weeks renal function was normal but a three-component pericardial friction rub, pericardial effusion and decreased ECG voltage had developed. The patient's condition remained unchanged until several days later when apparent tamponade prompted ECG-monitored pericardiocentesis using a subxyphoid approach. Sesosanguineous fluid in the amount of 200 ml was removed without ECG signs of myocardial injury. Modest clinical improvement

From the Departments of Medicine and Pathology, University of Virginia Medical Center, Charlottesville, where the authors were residents at the time this article was prepared. Dr. Hurd is now with the University of Cincinnati; Dr. Miller is now with Yale University; and Dr. Katholi is now with the Department of Medicine, University of Alabama Medical Center, Birmingham AL 35294, where correspondence should be addressed to him.

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was noted. Within four hours the patient's clinical condition worsened and another pericardial tap was attempted, with only 20 cc of straw-colored fluid removed. Shortly thereafter, the patient became apneic. Resuscitative efforts were unsuccessful.

### Pathology

Postmortem examination on all three patients revealed a large amount of blood in the pericardial space, large hearts by weight with dilated and hypertrophied right ventricles, and a needle track penetrating the wall of the right ventricle. The left ventricle of Patient #2 was also dilated and hypertrophied. The pericardium of each patient was fibrotic with evidence of pericarditis. Cultures and special stains of pericardial fluid and pericardium were negative. There were thrombi in a few small pulmonary arteries in Patient #1, and a large thrombus in the right main pulmonary artery and multiple old small left pulmonary arterial thrombi in Patient #3.

## Discussion

As evidenced by simple chest roentgenogram, the heart is affected in most cases of sickle cell anemia.[8–9] When first discovered, the enlarged cardiac silhouette seen in this disease as well as other severe, chronic anemias was attributed solely to the development of cardiomegaly as a compensatory mechanism.[8] Rarely, the apparent cardiac enlargement seen in severe chronic anemias has been shown to be the result of pericardial effusions of various etiologies.[6,7,10] Pericardial effusion and its most common cause, pericarditis, are not believed to be the direct result of sickle cell anemia[11] and have been reported in association with this disease only occasionally[1–7] (Table 1). Although pericardial effusion may theoretically be caused by any of the various etiologies that affect non-anemic patients, it has been reported in association with sickle cell anemia in only three patients (in only one patient was the diagnosis made ante mortem).[6,7] This is probably not a reflection of the true incidence of pericardial effusion in sickle cell disease, but perhaps more indicative of the extreme difficulty of making this important diagnosis before echocardiography was developed.

We report three patients with sickle cell anemia and echocardiographic evidence of pericardial effusion who underwent pericardiocentesis for either diagnostic or therapeutic indications with fatal outcome. At autopsy all three patients were found to have dilated and hypertrophied right ventricles, evidence of pericarditis and puncture of the right ventricle. Investigations were carried out to detect the possible etiologies, including acute rheumatic fever, infectious organisms, acute myocardial infarctions, hemosiderosis and malignancies, but none of these proved to be present in any of these three cases. Transient pericardial effusion has been shown to be common in heart failure,[11] but this effusion is not thought to be related to inflammation of the pericardium.[12] The pericarditis seen in other severe, chronic anemias has been attributed to undocumented infections, possibly due to increased suscepti-

**Table 1. Reported Cases of Pericarditis/Pericardial Effusion in Sickle Cell Anemia.**

| Author | No. of Patients | Pericarditis | Pericardial Effusion | Etiology | Other Pathology |
|---|---|---|---|---|---|
| Mallory[1] | 1 | Fibrinous pericarditis (A) | No | Acute rheumatic fever | — |
| Ohrenstein[2] | 2 | Fibrinous adhesions (A) | No | Rheumatic heart disease | — |
| Thoma[3] | 1 | Acute fibrinous pericarditis (A) | No | Unknown | Lobar pneumonia |
| | 1 | Adhesive pericarditis (A) | No | ? Tuberculosis | Military tuberculosis |
| Craenen et al[4] | 1 | Obliterative pericarditis (S) | No | ? Repeated sickle cell crisis | Congestive heart failure |
| Gerry et al[5] | 1 | Fibrinous pericarditis (A) | No | Staphylococcal sepsis | Congestive heart failure |
| | 3 | Fibrinous pericarditis (A) | No | Chronic renal failure | Congestive heart failure |
| Master et al[6] | 1 | Thin fibrous adhesions (A) | Yes (C) | Idiopathic | — |
| Yater and Hansmann[7] | 1 | No | 100cc watery fluid (A) | ? Congestive heart failure | Cor pulmonale |
| | 1 | No | 125cc clear straw colored fluid (A) | ? Congestive heart failure | Cor pulmonale |

(A)-determined at autopsy; (C)-determined clinically; (S)-determined at surgery.

bility in splenectomized patients[6] or due to a pericardium made more labile to infection by the iron deposits of hemosiderosis.[13] While hemosiderosis involving almost any tissue is a common complication of sickle cell anemia,[3] none of the patients presented here were found to have pericardial or myocardial iron deposits. All three patients were found, however, to have small fibrotic spleens, and acquired functional asplenia is a well-known cause of increased susceptibility to infection in sickle cell patients.[14] Another possible explanation is that during vaso-occlusive crises, congestion as seen in many tissues may lead to pericardial damage, resulting in conditions analogous to the pericarditis occasionally seen following myocardial infarction.[15] In our cases there was no microscopic evidence to support this mechanism.

The two approaches generally used for pericardiocentesis are the subxyphoid and apical,[16] with the former being used in all three of our cases. While both procedures have inherent dangers, the subxyphoid approach is associated with a higher incidence of perforation of the thin-walled right ventricle at which the needle is directed during this procedure.[16] The actual frequency with which this occurs is probably even greater than indicated by ECG monitoring since the changes may be delayed for several seconds[16] or not occur at all, as was the case in our last two patients. Fortunately, this complication usually does not result in hemorrhagic cardiac tamponade[17], probably because most small injuries to this lower pressure chamber are quickly sealed by normal hemostatic mechanisms.

Review of these cases suggests a number of reasons why patients with sickle cell anemia would more likely be at risk from pericardiocentesis using a subxyphoid approach. First, the right ventricle, in sickle cell anemia is often dilated[5], as was seen in these patients. Therefore, even in the presence of large effusions a bulging right ventricle may be in close approximation to the parietal pericardium near the point where it is usually entered by the subxyphoid approach. The relatively small space between the heart and pericardial sac makes the recovery of fluid more difficult and the likelihood of chamber perforation greater. Second, if chronic hepatic congestion due to right-sided heart failure is present, prolongation of the prothrombin time may occur and further increase the likelihood of hemorrhage to the point of tamponade in the event of myocardial injury. All three of our cases had right-sided heart failure and mildly increased prothrombin times. Third, thrombocytopenia has been found to be associated with an increased incidence of hemopericardium from pericardiocentesis. Patient #3 was thrombocytopenic probably as a result of a virally induced aregenerative crisis. A final factor that might have contributed to the marked bleeding into the pericardial space after right ventricular puncture is transiently increased pulmonary artery pressures. The presence of elevated pressures in the relatively thin walled right ventricle (which is usually a low pressure chamber) could potentiate bleeding. While chronic pulmonary hypertension is relatively uncommon in patients with sickle cell anemia,[5,18] transient increases in pulmonary artery pressures associated with infections or acute sickle cell crises occur more commonly.[18]

Whether elevated right ventricular pressures contributed to the bleeding in these patients is not known. Pulmonary hypertension is difficult to diagnose in sickle cell patients without invasive pressure monitoring since the symptoms and signs of this condition may be simulated entirely by the anemia per se. The pulmonary valve was not seen by echocardiography in these patients, but this test is not a sensitive method of determining elevated right-sided pressures.[19] The unsuccessful management of these three patients raises the notion that in patients in whom pericardiocentesis is being considered and in whom pulmonary hypertension may be present, measurement of pulmonary arterial pressure using a Swan-Ganz catheter should be done. If pulmonary hypertension is confirmed, any attempt at pericardiocentesis should be abandoned.

The ultimate cause of death in all three cases is believed to be related to cardiac tamponade as a complication of pericardiocentesis. We have outlined several reasons why patients with sickle cell anemia would more likely be at risk from pericardiocentesis. A safer method of both diagnosis and treatment of pericardial effusion in patients with sickle cell anemia may be found in one of the several surgical approaches to pericardial disease, some of which may be done under local anesthesia in the high risk patient.[20]

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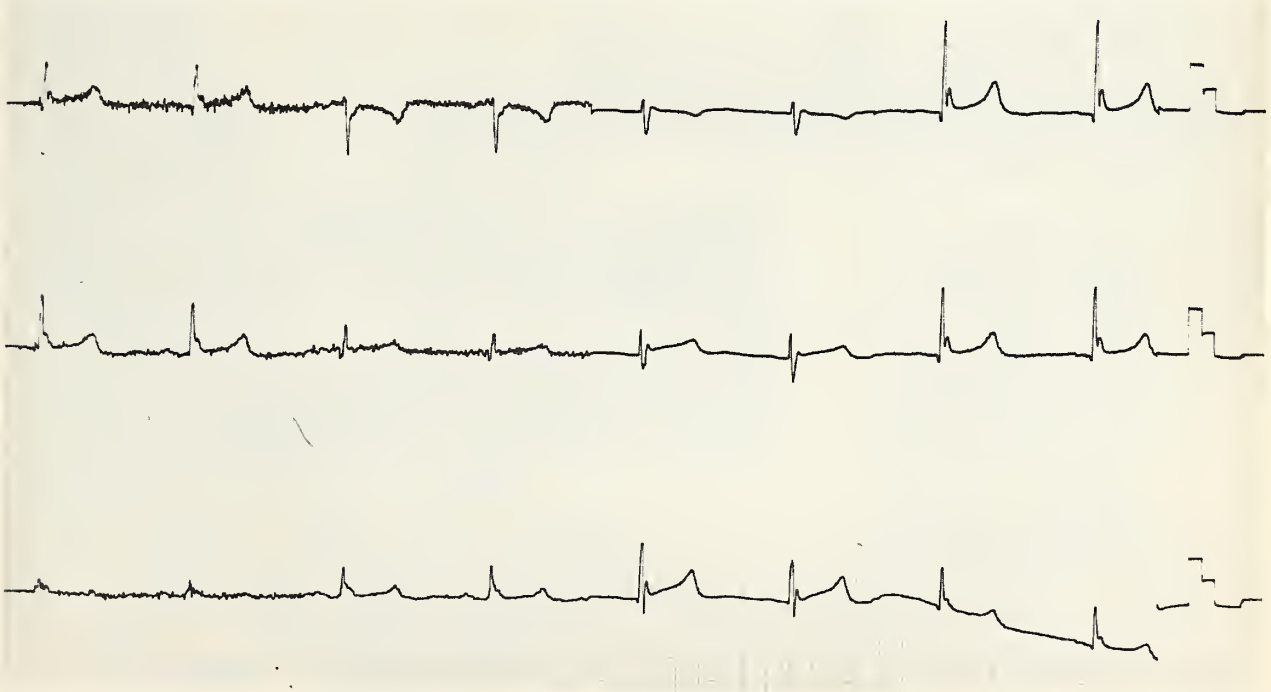
# Can You Diagnose This?

A medical puzzle prepared by
Donald W. Romhilt, MD, *Richmond, Virginia*

This electrocardiogram was obtained from a 34-year-old man who was in an auto accident and had a cervical spine injury with a sensory level at C-7 to T-1. It was taken four days after admission, when his pulse was in the 40s-50s, but he otherwise had no complaints. What diagnosis does it reveal? *From the Department of Medicine, Division of Cardiology, Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Romhilt at Box 51, MCV Station, Richmond VA 23298.*



DIAGNOSIS/DISCUSSION NEXT PAGE.

DIAGNOSIS: Hypothermia.

This electrocardiogram has the characteristic J wave deflection of hypothermia. The other findings of hypothermia present on this electrocardiogram are: prolongation of the PR and QT intervals, sinus bradycardia at a rate of 45 per minute, and artifact secondary to muscle tremor from the hypothermia. The QRS interval is prolonged, but the prolongation is related to the presence of the J wave rather than actual widening of the QRS complex. Varying degrees of ST segment displacement have been described in hypothermia, and the ST segment elevation on this electrocardiogram may be related to the hypothermia, or may possibly be due to unrelated early repolarization.

The hypothermia in this patient was thought to be secondary to vasodilation due to loss of sympathetic tone and was relieved by warming blankets.

The J wave deflection in hypothermia was described initially by Grosse-Brockhoff in 1943.[1] It is also sometimes referred to as the Osborn wave or camel-hump sign. The J wave is an upright deflection which occurs between the QRS complex and the early part of the ST segment. The J wave is almost always present when the body temperature falls below 25° C.

The precise origin of the J wave is not clear. The various pustulates for its cause have included myocardial anoxia, a conduction defect, an injury current, acidosis, and alteration of the overall relationship between depolarization and repolarization of the entire ventricle.

The J wave deflection or camel-hump is not specific for hypothermia. The sign has also been reported in patients with severe cerebral injury.[2] This patient was alert and oriented at the time of the electrocardiogram. His rectal temperature was 90°F.

Cardiac arrhythmias occur with increasing frequency as the body temperature decreases. Atrial fibrillation is the most common arrhythmia, but ectopic atrial rhythm, atrial flutter, atrioventricular junctional rhythm, premature ventricular contractions, and ventricular fibrillation have also been described with hypothermia.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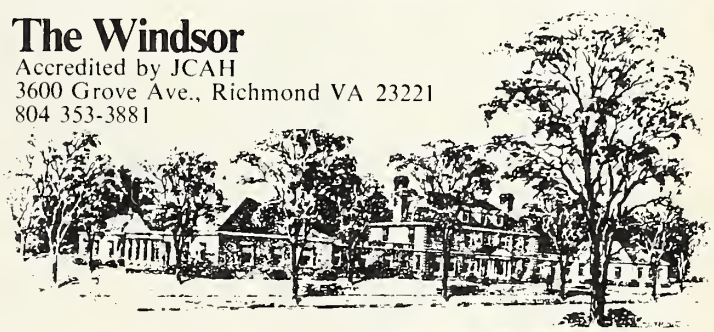

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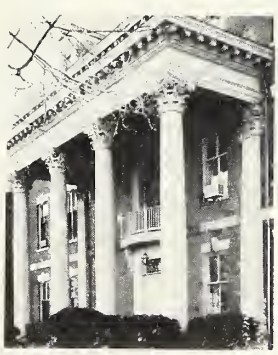

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VIRGINIA MEDICAL
EDITORIAL

# The Political Process: Where's the Action?

THE action begins at the local political parties. The local parties, not the general voters, select the candidates. The voters can only accept or reject the candidates previously selected by the parties.

Since the local parties are the seats of power, you must attend a meeting of either or both parties, to see who is initiating policy, selecting candidates, and, in effect, controlling basic political action. You will see many fine people, but you will also see some whom you little respect, as well as some who are highly motivated extremists. Since less than 10% of a group can control that group, less than 10% of the "local party" can decide what you will be allowed to decide. That minority of a minority can control your destiny.

Political apathy has allowed moderation to become a ten-letter word. Moderation stirs no emotion. If ideas were colors, moderation would be an unobtrusive grey. "Moderation in all things" makes no headlines. Extremists and extremism catch the reportorial eye even though most of us are moderates and willing to compromise. If moderates were not in the majority, we would have constant pitched battles in our streets. Yet the extremists lead the way—or at least the news stories. "Power to the poor!" "Censor the library!" "Obey no law you consider wrong." "Shoot the bastards." These are the slogans and ideas pandered today. The far left wing of the Democratic party has no time for sober discussion or even for good manners. They disrupt, they tear down, they wish to level us all. Then they will decide whom to raise up. And the far right wing of the Republican party wishes to raise us up to their heavenly status—censored, expurgated, admonished, reprogrammed. The far left considers moderates untrustworthy; simultaneously, the far right considers those same moderates too sinful to run their own lives.

The tails are wagging the dog. The extremists of either ilk dominate the media—they have name recognition. Whether you are selling cigarettes, beer, politicians or ideas, it is all the same. Love it or hate it, but—for heaven's sake—recognize it.

A pox on both their houses. We—the moderates, the majority— have abdicated our responsibility. The extremists and those with vested interests have influence beyond their numbers because they are motivated, they care. They take care to go to the political meetings, to air their views, to yell down the chairman, to castigate the sinners, to raise enmities and antagonisms so as to divide their opposition. And, wonder of wonders, we let them do it.

This worm has turned. I refuse to let those folks do my thinking, my deciding, my lawmaking. I have gone to my local political gatherings—it was appalling to see how few people were there—and I will keep going back. I have joined VaMPAC and the AMA, and I will watch them, too. And I will tell them what I do and do not like. I will campaign for the politicians whom I support. I will be active! I will take part!

You must decide for yourself whether to be an initiator, a watch dog, a doer, or "just a voter," hoping for the best. The American political process is a

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strange and wondrous thing, allowing anyone to be a mover or a sitter, to be an in or an out, to be heard or to be ignored. And the process is startlingly simple to join. You will be joyfully accepted. All you have to do is pick your party. They need good people to help, to watch, to initiate, to work and to supervise. Ignore your chance to join the basic political process and you lose many of your basic political rights without receiving even a bowl of pottage.

The minority shall inherit the country unless the majority awakens.

HENRY S. CAMPELL, MD

# Found: Two Surgeons of the Virginia State Navy

The story of Virginia's State Navy during the Revolutionary War is an exciting one, for it was a fighting force created out of a compelling urgency and necessity. Privately owned vessels were pressed into service and armed, then manned by seafaring men who lived on the Chesapeake Bay and along the rivers of Virginia's Eastern Shore. These privateers seized British ships and their crews and cargoes with much success during the first years of the American Revolution.

Most of these privateers were not only inadequately equipped with armament but were undermanned as well. Particularly, in many instances they carried no surgeons or surgeon's mates, those equivalents of our naval medical officers today. ("Surgeon", from the earlier "chirurgeon", then designated all physicians.)

Records of the education, experience and training in medicine and surgery of these naval doctors is elusive, but it seems clear that they usually were commissioned by the privateers' commanding officers, largely on the basis of personal friendship. Blanton lists the names of 35 Virginia State Navy surgeons.[1]

The names of two more, Dr. Joseph Hay and Dr. John Applewhaite, were found by this author while perusing the large collection of material relating to the Virginia State Navy in the archives of the Huntington Museum Library in Newport News, where the scanty record yields the following biographical data.

## DR. JOSEPH HAY

From the beginning of the Revolutionary War until July 1777, Dr. Joseph Hay was a surgeon's mate in the hospital at Williamsburg, where he also served for a time as apothecary. In 1791 James Kemp, clerk of the Continental Hospital of Virginia, certified that Dr. Hay's hospital service was under the direction of Dr. John Morrison and Dr. William Rickman.[2]

According to the statement of George Chamberlayne, first lieutenant of the brig *Jefferson*, Dr. Hay was appointed surgeon on the *Jefferson* under Capt. Richard Barron, but before the vessel could make its intended cruise, it was sunk by ice in the James River on January 1, 1781. Dr. Hay then served for seven months as surgeon in the state hospital at Richmond and in November 1781 joined the Virginia State Troops, serving with this renowned military arm until April 22, 1783.

## DR. JOHN APPLEWHAITE

The records indicate that from 1785-1786 Dr. John Applewhaite was surgeon aboard the *Liberty*,[3] the same brig on which Dr. Thomas Chrystie served, when it was under the command of Capt. William Jennings. Captain Jennings later deposed that Dr. Applewhaite had been employed as a surgeon at Hampton after the surrender at Yorktown; no doubt Jennings came to know him there and asked for his appointment to the *Liberty*.

Another deposition that has come down to us concerning Dr. Applewhaite was made by Mrs. Sarah Gilbert, daughter of Dr. John Ramsey, surgeon of the Virginia State Troops. She states that Dr. Applewhaite was a mate of her father as early as 1776.

Dr. Applewhaite died on April 23, 1800. He was survived by an only daughter, Judith C. Applewhaite, who in 1853 sought bounty lands she said were due him for his services in the Revolution.[4]

MALCOLM H. HARRIS, MD

West Point VA 23181

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2. Brumbaugh GM: Revolutionary War Records, Virginia, Vol. 1, p. 550
3. United States Navy Archives, File 87260
4. United States Pension Bureau, File 12124

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# WHO'S WHO

**Dr. Anthony J. Munoz,** Second Vice President of The Medical Society of Virginia, was elected chairman of the board of directors of Blue Shield of Virginia at the board's annual meeting earlier this year. Dr. Munoz, a surgeon in *Farmville,* is a past president of the Southside Virginia Medical Society and has served on the Blue Shield board since 1974.

At the same meeting, **Dr. Frank G. Turner,** *Danville,* was elected vice chairman of the Blue Shield board, and **Dr. Thomas N. P. Johns**, *Richmond*, was chosen Blue Cross of Virginia vice chairman.

New president elect of the American Academy of Neurology is **Dr. Nelson G. Richards,** *Richmond.* When he takes office in 1983, Dr. Richards will be the first private practitioner to lead the academy; all the previous presidents have been academicians. Founded more than 30 years ago, the academy is the largest group of neurologists in the world, with 7,000 members.

A graduate of the University of Virginia School of Medicine Dr. Richards previously practiced in Roanoke, Virginia. His curriculum vitae is an extensive one, with many teaching posts and memberships, and he is a fellow of both the academy he will head and the American College of Physicians.

At its annual spring meeting, the Mid-Atlantic Psychotherapy Society elected **Dr. John M. Dluhy,** *Alexandria,* as its new president. The society covers Washington, DC, Maryland, Virginia and West Virginia. A medical graduate of the University of Illinois, Dr. Dluhy serves on several committees of both the Washington Psychiatric Society and the American Group Psychotherapy Association.

An annual lectureship in honor of **Dr. Kinloch Nelson,** *Richmond,* has been established by the School of Medicine of the Medical College of Virginia and was inaugurated recently by Dr. Sam I. Rapaport of the University of California at San Diego, who lectured on the clinical use of heparin and oral anticoagulants. For many years dean of MCV's School of Medicine, Dr. Nelson is now director of The Medical Society of Virginia's continuing education program.

New chief of staff at Johnston Memorial Hospital in *Abingdon* is **Dr. Frederick Ellison Conrad.**

**Dr. Eugene P. Strelka** has been elected chief of staff of Montgomery County Hospital, *Pulaski.*

In *Charlottesville,* **Dr. Frank E. Taylor** is the new president of Martha Jefferson Hospital's board of trustees.

**Dr. J.J. Engel,** *Martinsville,* has been appointed 1981 president of the medical staff of Memorial Hospital of Martinsville and Henry County.

Newly elected president of the medical staff of Potomac Hospital is **Dr. Carol S. Shapiro,** *Manassas.* Last year Dr. Shapiro was president of the Prince William County Medical Society.

**Dr. John E. Landis,** *Front Royal,* has been elected president of the medical staff of Warren Memorial Hospital.

At Stuart Circle Hospital in *Richmond,* **Dr. Richard W. Dodd** will be chief of staff for the coming year.

At the Alexandria Hospital, **Dr. Ludovic J. DeVocht** is the new president of the medical staff and **Dr. Robert L. Bregman** is the new president of the board of directors. Both practice in *Alexandria.* This hospital recently had a health education program about smoking at which **Dr. Robert F. Dobrzynski,** *Alexandria,* and **Dr. Ronald J. Karpick,** *Falls Church,* discussed the physiological aspects of cigarette and pipe smoking.

**Dr. Richard E. Gardner,** *Staunton,* is the new president of the Virginia Society of Ophthalmology and Otolaryngology. **Dr. Claiborne G. Whitworth, III,** *Charlottesville,* will serve with him as secretary-treasurer.

**Dr. William B. Warden,** *Norfolk* family practitioner, has been appointed to a three-year term as a commissioner of the Eastern Virginia Medical Authority.

At the University of Virginia in *Charlottesville,* **Dr. Lawrence R. Burwell,** associate professor of internal medicine, was given the faculty's scholarship-service award for excellence in teaching and research.

And at the Medical College of Virginia in *Richmond,* **Dr. Nicholas Hranowsky** was promoted to an assistant clinical professorship in the Department of Anesthesiology.

The 17th annual Medical Staff Award of the Louise Obici Memo-

rial Hospital in Suffolk was conferred this year on **Dr. James M. Moss,** *Alexandria.* Dr. Moss is a Past President of The Medical Society of Virginia and is currently governor for Virginia of the American College of Physicians and councilor from Virginia of the Southern Medical Association.

No sooner was the paragraph above written than word arrived that Dr. Moss had received the Pfizer Award for Outstanding Contributions to Clinical Medicine at a meeting in Cincinnati of the American Diabetes Association. Dr. Moss has been president of both the District of Columbia and Virginia affiliates of the association and was for 26 years director of the Diabetic Clinic at Georgetown University Hospital.

After many years of distinguished service, five Medical Society of Virginia Members eased into retirement over the summer.

In *Waverly,* **Dr. Maurice S. Rosenberg** retired after 35 years of serving that community's medical needs.

**Dr. Eugene R. Grether,** too, had been practicing for 35 years when he closed his *Alexandria* office.

In *Richmond,* **Dr. W. E. Apperson,** who began his medical career 44 years ago, retired as director of the Virginia Department of Health's Bureau of Tuberculosis Control.

And at the University of Virginia, **Dr. Thomas H. Hunter,** Owen R. Cheatham Professor of Sciences, and **Dr. E. Meredith Alrich,** Claude A. Jessup Professor of Surgery, were elected professors emeritus when they retired. **Dr. Stanton P. Nolan** was elected to the chair vacated by Dr. Alrich.

After 14 years as a member of the National Board of Medical Examiners, **Dr. William D. Mayer,** *Norfolk,* has been elected an honorary member of the board for life. Dr. Mayer, president of the Eastern Virginia Medical Authority is only the second honorary member in the board's 66-year history.

New leaders of the Culpeper County Medical Society are **Dr. Morton P. Chiles,** president; **Dr. Benjamin F. Allen,** vice president, and **Dr. Charles Gordon Heckel,** secretary-treasurer. All practice in *Culpeper.*

Dedicated recently in honor of the late Wilhelm Moll, JD, was the Wilhelm Moll Rare Book and Medical History Room in the University of Virginia's Claude Moore Health Sciences Library. The room was formally opened in a ceremony led by **Dr. James G. Kavanaugh,** chairman of the Library Advisory Committee. Speakers included **Dr. William H. Muller, Jr.,** vice president for health affairs, and **Dr. Kenneth R. Crispell,** former dean of the School of Medicine. All praised Dr. Moll's distinguished contributions as administrator, librarian, historian, author and friend of medicine. Dr. Moll was executive director of both the Health Sciences Library and the Health Sciences Communication Center.

The Virginia Obstetrical and Gynecological Society has elected **Dr. Leo J. Dunn,** *Richmond,* as president; **Dr. David W. Branch,** *Roanoke,* president elect; **Dr. Edward E. Gahres,** *Alexandria,* vice president; and **Dr. Thomas A. Wash,** *Newport News,* secretary-treasurer.

**Dr. Munoz: Chairman**

**Dr. Nelson: President-Elect**

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- Reservations should be made no later than October 8, 1981. After that date, reservations will be accepted on a space-available basis only.
- The Omni Hotel will make every effort to take care of early arrivals, but some rooms may not be available until mid-afternoon due to varying checkout hours.

- The 1981 Annual Meeting will span five days instead of the customary four so that an extra afternoon of continuing medical education can be offered. Thus there will be scientific sessions for five continuous days, with a projected total of 15 hours of Category I credits. Virginia specialty societies have been invited to sponsor segments, and there will be a choice of two programs at most of the sessions.
- The House of Delegates will meet on Thursday, October 22, and Saturday, October 24. Council will meet on Thursday. Reference committees will meet on Friday, October 23.
- Technical exhibits will be installed in Stratford Hall and the Promenade of the International Ballroom. Scientific exhibits will be displayed in the Promenade area. Visiting hours for all exhibits will be from 8 am to 5 pm Friday, October 23, and from 8 am to 1 pm Saturday, October 24.
- Complete program will be bound into VIRGINIA MEDICAL's October issue.

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gram viable: One, the three physicians in charge of it not only have a hospital-based practice, but it is a large practice in a heavily populated area, capable of generating enough patients to justify a program. (Dr. Poretz estimates that his patients in the outpatient program comprise only about 5% of his total patient load.) Two, the program is located in a 656-bed hospital, with a big hospital's resources in facilities and personnel. Three, the Fairfax Hospital from the beginning contributed emphatic effort and support, and to the hospital's administrators Dr. Poretz gives the lion's share of the credit for the program's acknowledged success.

Helpful the hospital undoubtedly has been, but the primary credit belongs to Dr. Poretz. His peers in the Virginia Society of Internal Medicine recognized that by giving him their Young Internist of the Year Award, conferred selectively on an internist who has made a major contribution to the socioeconomic aspects of medical practice. Said the citation that accompanied the award, "This innovative program is an outstanding example of what physicians in the private sector can do to maintain high quality, keep down costs, and better utilize limited resources." A. G.

**Inside Information:** Three-year-old Jay Deinlein feels the heart of "Dudley," an educational model in the University of Virginia Medical Center's new children's museum, where youngsters may visit while their parents see physicians in the Primary Care Center. While the museum's director, Katya S. Gothie, watched, Jay had also squeezed a pump so that a red liquid, representing blood, had flowed through Dudley's clear plastic heart and kidneys, and had blown air into the model's lungs and watched the diaphragm move. Other amusements in the "hands-on" environment include felt boards on which hands and feet can be measured, mirrors that distort body images, and electronic question-and-answer boards that test shape and word recognition. "It's a real asset to the building," says Dr. Robert H. Hodge, Jr., under whose medical direction the museum was initiated, "promoting good health through understanding."


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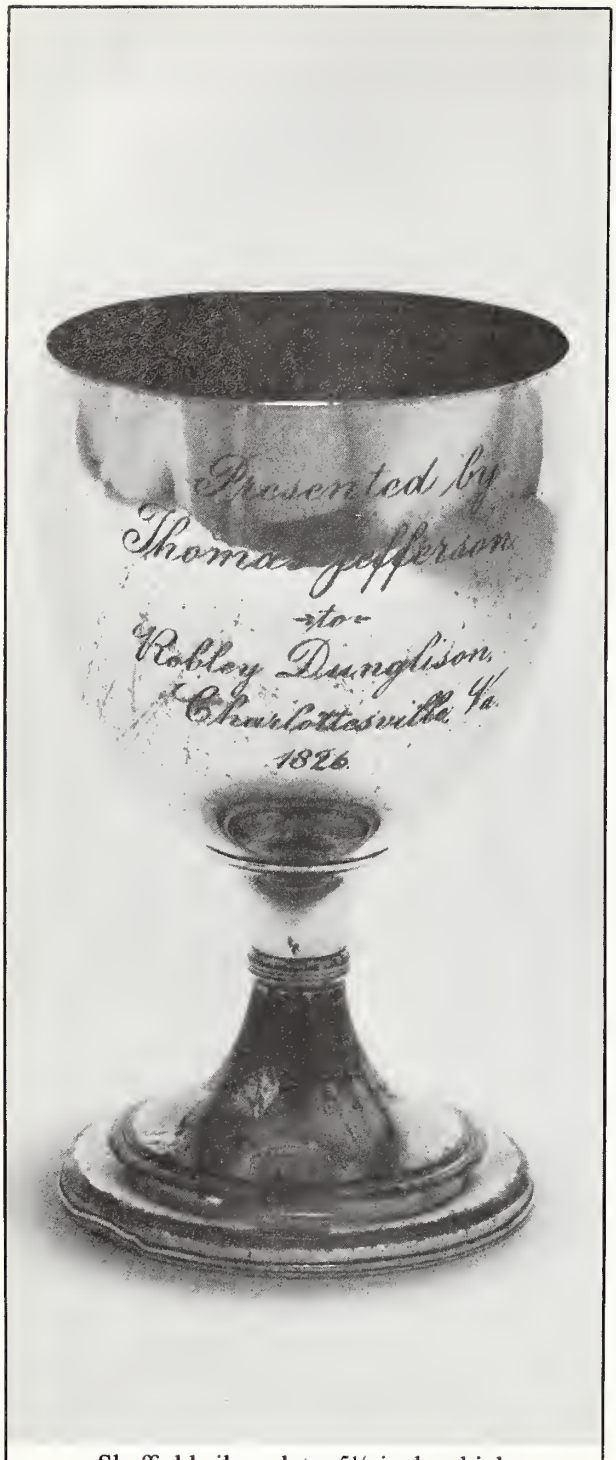


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**Serious and occasional fatal hypersensitivity (anaphylactoid) reactions have been reported in patients on penicillin. Although anaphylaxis is more frequent following parenteral use, it has occurred in patients on oral penicillins. These reactions are more apt to occur in individuals with history of sensitivity to multiple allergens. There are reports of patients with history of penicillin hypersensitivity reactions who experienced severe hypersensitivity reactions when treated with a cephalosporin. Before penicillin therapy, carefully inquire about previous hypersensitivity reactions to penicillins, cephalosporins and other allergens. If allergic reaction occurs, discontinue drug and initiate appropriate therapy. Serious anaphylactoid reactions require immediate emergency treatment with epinephrine. Oxygen, I.V. steroids, airway management, including intubation, should also be administered as indicated.**
**Precautions** Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.
PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.
NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.
**Adverse Reactions** Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.
As with other semisynthetic penicillins, SGOT elevations have been reported.
As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.
Cyclacillin is not indicated in children under 2 months of age.
*Patients with Renal Failure* Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).
**Dosage** (Give in equally spaced doses)

| INFECTION | ADULTS | CHILDREN* |
|---|---|---|
| *Respiratory Tract* | | |
| Tonsillitis & Pharyngitis | 250 mg q.i.d. | body weight < 20 kg (44 lbs) 125 mg q.i.d.<br>body weight > 20 kg (44 lbs) 250 mg q.i.d. |
| Bronchitis and Pneumonia | | |
| Mild or Moderate Infections | 250 mg q.i.d. | 50 mg/kg/day q.i.d. |
| Chronic Infections | 500 mg q.i.d. | 100 mg/kg/day q.i.d. |
| Otitis Media | 250 mg to 500 mg q.i.d.† | 50 to 100 mg/kg/day† |
| Skin & Skin Structures | 250 mg to 500 mg q.i.d.† | 50 to 100 mg/kg/day† |
| Urinary Tract | 500 mg q.i.d. | 100 mg/kg/day |

*Dosage should not result in a dose higher than that for adults.
†depending on severity

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# LETTERS

## Gum as Children's "Chew" Prompts Plea for Prevention

An article about the use of bubble gum as a "chew" that appeared on the first page of the sports section of the *Richmond Times-Dispatch* of June 22, 1981, prompts me to write.

There are two problems concerning this practice. One is that the use of this product to emulate major league ballplayers may well promote the use of tobacco by children.

The other, more important problem is the possibility of death due to aspiration of the gum into the trachea. The June issue of the *National Geographic* magazine carries a story of a high school baseball umpire who almost died when he aspirated his "chaw" of tobacco after being struck by a baseball. How many other tragedies and near tragedies such as this could be prevented?

I believe that we as physicians have been complacent far too long about this very dangerous practice. We must plead with parents, particularly all parents of athletes, and with all athletes and coaches to stop this "ritual" at once. We must involve our fellow physicians in this cause of preventive medicine. The death of an athlete or any other person due to this error in judgment would be such a tragic, preventable, unnecessary loss. Let us not hear the plaintive cry from bereaved parents, "Why didn't someone tell us?"

C. W. Caulkins, Jr., MD
220 Rosser Avenue, Waynesboro VA 22980

## Sees Possible Glucose Test Interference by Vitamin C

In the excellent article by Harold J. Wanebo on colorectal cancer in the April 1981 issue,[1] the Hemoccult® test was mentioned. For blood detection a positive test is caused by the oxidation of a test-strip dye catalyzed by the peroxidative action of blood coupled to the test-strip organic peroxide.

This test is similar to that used for the end point for urinary glucose and may be subject to the same false negative results. I have published two papers[2,3] on the interference of the glucose test by large amounts of vitamin C (ascorbic acid). A similar false negative test for blood in feces may result with individuals on high intake of vitamin C (two or more grams/day compared to RDA of 60 mg) and suggest that the physician should be aware of this potential problem.

Richard B. Brandt, PhD
Department of Biochemistry
Medical College of Virginia, Richmond VA 23298

1. Wanebo HJ: Colorectal cancer: to screen or not to screen. Va Med 108:238-247, 1981
2. Brandt RB, Guyer KE, Banks WL: A simple method to prevent vitamin C interference with urinary glucose determinations. Clin Chimica Acta 51:103-104, 1974
3. Brandt RB, Guyer KE, Banks WL: Urinary glucose and vitamin C. Am J Clin Pathol 68:592-594, 1977

## "A nice boost for Scouting"

Thank you very much for the May issue's delightful request for help from physicians for the Scouts' jamboree.[1] Whatever the response to it, it's a nice boost for Scouting. We appreciate it.

I shared the issue with our public relations people, and you might be interested to know that the celebrity ad campaign which your request parodied has been judged by *Advertising Age* to be one of the top ten advertising campaigns of 1981, the second time this campaign has been in the top ten.

James C. Langridge

National Director, Health/Safety Services
Boy Scouts of America
PO Box 61030, Dallas/Ft. Worth Airport TX 75261

1. News Bureau: When you help a Boy Scout, there's no guarantee he'll grow up to be a Doctor. But you never know. Va Med 108:285, 1981

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# MEETINGS ABOUT MEDICINE

**September 24-25**
**Fourth Annual Conference on Aging and Health** (Salem VA Medical Center and, University of Virginia), *Salem.* 10 Cat. 1 credits. Frank Brochu, MD, Veterans Administration Medical Center, Salem VA 24153, (703) 982-2463.

**September 24-26**
**Sixth Annual Symposium on Advances in Cancer Treatment Research** (University of Maryland), *Baltimore.* Betty B. Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**September 25**
Environmental Insults to the Fetus and Newborn: 4th Annual Perinatal Conference (Medical College of Virginia), *Richmond.* Kathy E. Johnson, Box 48, MCV Station, Richmond VA 23298, (804) 786-0494.

**September 26**
**Recent Advances in Gastroenterology** (Northern Virginia Consortium for Continuing Medical Education), Alexandria Hospital, *Alexandria.* 4 hrs. AMA/MSV Cat. 1. Sheila Gell, 4600 King St., Suite 2N, Alexandria VA 22314, (703) 998-4906.

**October 1-2**
**Seminar on Current Non-Invasive Techniques in Peripheral Vascular Disease** (Medical College of Virginia/McGuire VA Medical Center), *Richmond.* 13½ credit hrs. Erma Blanchard, (804) 786-0494.

**October 1-3**
**Eastern Virginia Medical School Summer Conference at the Beach** (Department of Internal Medicine), *Virginia Beach.* James P. Baker, MD, Eastern Virginia Medical School, Norfolk VA 23501, (804) 628-3584.

**October 1-3**
**Topics in Gastroenterology and Liver Disease: Medical and Surgical Aspects** (Johns Hopkins University), *Baltimore.* 19 credits. Theodore M. Bayliss, MD, Office of CME. 720 Rutland Ave., Baltimore MD 21205, (301) 955-3168.

**October 1-4**
**Annual Meeting, American Society of Internal Medicine,** *New York City.* W. R. Ramsey, 2550 M Street NW, Suite 620, Washington DC 20037.

**October 2-3**
**Calcitonin—Biologic and Clinical Aspects** (University of North Carolina School of Medicine at Chapel Hill), Velvet Cloak Inn, *Raleigh, North Carolina.* 7 hrs. Cat. 1. Fee: $25. William B. Wood, MD, (919) 962-2118.

**October 3**
**3rd Annual Ophthalmology Conference for the Non-Ophthalmologist Physician: Common Eye Problems:** (Fairfax Hospital/Northern Virginia Academy of Ophthalmology), Fairfax Hospital, *Falls Church.* 6 credit hrs. Fee, $30. Fairfax Hospital Association, 8001 Braddock Rd., Springfield VA 22151, (703) 321-4255.

**October 7-9**
**Infection Control** (East Tennessee State University College of Medicine and Russell County Medical Center), *Abingdon, Virginia.* 7 credits. Fee: $50. Shirley Bogart, (605) 928-6426, Ext. 204.

**October 9**
**A Day on Cardiac Pacing** (Medical College of Virginia), *Richmond.* 6 credit hrs. Fee: $55 to $75. Dawn G. Kenny, American Heart Association, Virginia Affiliate, PO Box 12365, Richmond VA 23241, (804) 643-7391.

**October 9-10**
**The GI Assistant** (Medical College of Virgina), *Richmond.* 15 credit hrs. Erma Blanchard, Box 91, MCV Station, Richmond VA 23298, (804) 786-0494.

**October 9-11**
**The Pediatric Approach to Common Hematological Problems** (American Academy of Pediatrics, University of Maryland, Johns Hopkins University), *Ocean City, Maryland.* 11 credits. CME Course Coordinator, 720 Rutland Ave., Baltimore MD 21205, (301) 955-5880.

**October 10**
**Second Saturday Symposium, Psychiatry and Behavioral Sciences** (Eastern Virginia Medical School), *Norfolk.* Robert L. Cassidy, MD, Eastern Virginia Medical School, Norfolk VA 23501, (804) 446-5268.

**October 10-15**
**Disease Due to Immune Mechanisms: 1981 Update** (University of Pittsburgh), *Key Biscayne, Florida.* 24 credit hrs. Fee, $260. Division of Continuing Education, Uni-

versity of Pittsburgh School of Medicine, 1022 Scaife Hall, Pittsburgh PA 15261.

**October 11-16**
**Annual Meeting, American College of Surgeons,** *San Francisco.* C. R. Hanlon, MD, 55 E. Erie Street, Chicago IL 60611.

**October 16**
**Annual Family Practitioners Symposium** (Gill Memorial Hospital), Patrick Henry Hotel, *Roanoke.* AAFP approved. David N. Keys, MD, PO Box 1789, Roanoke VA 24008, (703) 344-2071.

**October 16**
**Pediatrics Prep III: Neonatology** (East Tennessee State University College of Medicine), *Bristol, Tennessee.* 7 credits. Shirley Bogart, (615) 928-6426, Ext. 204.

**October 17**
**3rd Annual Behavioral Medicine Conference:** Primary and Secondary Risk Reduction of Coronary Artery Disease (University of Virginia), *Charlottesville.* 7 hrs. Cat. 1. Fee: $65. Dr. R. Craig Lefebvre, Behavioral Medicine Center, Blue Ridge Hospital, Charlottesville VA 22901, (804) 924-5314.

**October 24-25**
**Coping and Complying with Utilization Review and Quality Assurance** (American College of Utilization Review Physicians), Peachtree Plaza, *Atlanta, Georgia.* 10 credit hrs. Fee, $135 members, $165 non-members. Betty J. Hamman, 1108 N. Second St., Harrisburg PA 17102, (717) 697-4428.

**October 30**
**Update in Practical Clinical Endocrinology** (University of Maryland), *Baltimore.* Betty B. Saar, 10 S. Pine Street, Baltimore MD 21201, (301) 528-3956.

**October 30-31**
**7th Biennial Symposium: Sudden Cardiac Death** (Deborah Heart and Lung Center), the Meadowlands Hilton, *Secaucus, New Jersey.* 10 credit hours. Fee, $150. M.A. Ramsey, Box 369, Wayne PA 19087, (215) 688-6852.

**October 30-31**
**Allergy and Immunology for the Clinician** (American Academy of Allergy), *Hilton Head, South Carolina.* 14 credits. A. J. Kimber, 611 E. Wells Street, Milwaukee WI 53202, (414), 272-6071.

**October 31-November 5**
**Annual Meeting, American Academy of Pediatrics,** *New Orleans.* M. H. Jennison, MD, 1801 Hinman Ave., Evanston IL 60204.

**November 1-4**
**Annual Symposium on Computer Applications in Medical Care** (George Washington University), *Washington, DC.* Office of CME, George Washington University, 2300 K Street, NW, Washington DC 20037.

**November 5**
**Annual Fall Program, Virginia and North Carolina Societies of Internal Medicine,** *Williamsburg.* Fee, $75. Virginia Society of Internal Medicine, PO Box 6264, Norfolk VA 23508.

**November 6-7**
**Third Psychosis** (University of Maryland), *Baltimore.* Betty Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**November 7-8**
**Reading Retreat VII: A Dialogue on Recent Advances in Cardiology and Pulmonary Medicine** (Virginia Chapter, American College of Physicians), Peaks of Otter Lodge, *Roanoke.* 15 Cat. 1 credit hrs. Fee: $70. Daniel F. Mohler, MD, Dean's Office, Box 395, McKim Hall, UVa Medical Center, Charlottesville VA 22908.

**November 9-12**
**The Evaluation of Endocrine Disorders in the Pediatrician's Office** (Johns Hopkins University School of Medicine), *Baltimore.* 32 credit hrs. Fee, $350. Program Coordinator, Turner 22, 720 Rutland Ave., Baltimore MD 21205, (301) 955-6046.

**November 9-13**
**Basic Practice: Ultrasound** (Johns Hopkins School of Medicine), *Baltimore.* Fee, $400. Joan Batt, Department of Radiology, Johns Hopkins Hospital, Baltimore MD 21205, (301) 955-8450.

**November 12-13**
**Second Annual Virginia Emergency Medical Service Symposium** (State EMS Advisory Council/Medical Society of Virginia/American College of Emergency Physicians/others), *Fredericksburg.* Mary Camp, Bureau of EMS, 109 Governor St., Richmond VA 23219, (804) 786-5188.

**November 14**
**Second Saturday Symposium—Ophthalmology** (Eastern Virginia Medical School), *Norfolk.* Hour-for-hour credits. Robert L. Cassidy, MD, EVMS, PO Box 1980, Norfolk VA 23501. (804) 446-5268.

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**David L. Chesler, MD,** Internal Medicine, 2621 Commonwealth Drive, Charlottesville VA 22901

**Cecil C.H. Cullander, MD,** Psychiatry, 1224 West Main Street, Charlottesville VA 22903

**Mary W. Clark, MD,** Orthopedics, Children's Rehabilitation Center, Charlottesville VA 22901

**Raymond B. Dyer, MD,** Radiology, Box 170, UVA Hospital, Charlottesville VA 22908

**Jerry A. Fogle, MD,** Ophthalmology, UVA Medical Center, Charlottesville VA 22908

*Alexandria Medical Society*

**Edward K. Silberman, MD,** Psychiatry, 2304 N. Jackson Street, Arlington VA 22201

*Arlington County Medical Society*

**Wilson L. Coudon, MD,** Pulmonary Medicine, 1400 South Joyce Street, Arlington VA 22202

**David S. Frenkel, MD,** Psychiatry, 3457 North 13th Street, Arlington VA 23201

**Iver Kasenetz, MD,** Urology, 6060 Arlington Blvd., Falls Church VA 22044

**Robert J. Meister, MD,** Hematology/Oncology, 8501 Aragon Lane, Chevy Chase MD 20015

**Jerold Mikszewski, MD,** Neurology, 5275 Lee Highway, Arlington VA 22207

*Chesapeake Medical Society*

**Alexander K. Su, MD,** Internal Medicine, 3028 Princess Anne Crescent, Chesapeake VA 23321

*Fairfax County Medical Society*

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**Allen K. Howe, Jr., MD,** Family Practice, 1931 Baton Drive, Vienna VA 22180

**George M. Lynch, MD,** Family Practice, 3204 Schandwick Place, Fairfax VA 22031

**Peter C. Pieslor, MD,** Pathology/Nuclear Medicine, 8209 Guinevere Drive Annandale VA 22003

**Jeffrey M. Schulman, MD,** Obstetrics/Gynecology, 6707 Old Dominion Drive, McLean VA 22101

*Fredericksburg Area Medical Society*

**Cecilio E. Albo, MD,** General Practice, Box 71, Ladysmith VA 22501

**Frank W. Marks, MD,** Internal Medicine, 2301 Fall Hill Avenue, Fredericksburg VA 22401

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**Dwight S. Oldham, MD,** Medical Oncology, 1937 Thomson Drive, Lynchburg VA 24501

**Thomas J. Delaney, MD,** Anesthesiology, 1427 Robin Hood Place, Lynchburg VA 24503

**Lawrence D. Jones, MD,** General Practice, Box 1280, Lynchburg VA 24505

*Mid-Tidewater Medical Society*

**Gaylord W. Ray, MD,** Family Practice, Walter Reed Memorial Hospital, Gloucester VA 23061

*Norfolk Academy of Medicine*

**Anita J. Herbert, MD,** Internal Medicine, 454 Westover Mews, Norfolk VA 23507

**William G. Lowell, MD,** Pediatrics, 913 Land of Promise Road, Chesapeake VA 23322

**A. Dewey Richards, MD,** Family Practice, Box 1980, Eastern Virginia Medical School, Norfolk, VA 23501

**Boyd H. Winslow, MD,** Urology, 400 West Brambleton Avenue, Norfolk VA 23510

**Jowita E. Dziatkiewicz, MD,** Pediatrics, 1204 Level Green Blvd., Virginia Beach VA 23464

**Benjamin P. Eng, MD,** Family Practice, 840 Redgate Avenue, Norfolk VA 23507

**William M. Lieppe, MD,** Cardiology, 362 Pender Court, Norfolk VA 23507

*Northern Neck Medical Association*

**Gerald A. Packer, MD,** Emergency Medicine, 556 Logan Place, Newport News VA 23601

*Portsmouth Academy of Medicine*

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*Richmond Academy of Medicine*

**Archer L. Baskerville, MD,** Cardiovascular Diseases, 601 Medical Arts Building, Richmond VA 23219

**Alvin I. Goldstone, MD,** Otolaryngology, 8919 Three Chopt Road, Richmond VA 23229

**William G. Harrington, MD,** Family Practice, 5812-D Willow Oaks Drive, Richmond VA 23225

**Ivan B. Hoffman, MD,** Psychiatry, 2602 Pleasant Run Drive, Richmond VA 23233

**Harvey V. Lankford, MD,** Endocrinology, 2002 Bremo Road, Richmond VA 23226

*Continued over*

**James C. Meadows, MD,** Internal Medicine, 3313 Park Avenue, Richmond VA 23221

**Hassan A. Mohagheghi, MD,** Allergy, 2031 Monument Avenue, Richmond VA 23220

**Crawford C. Smith, MD,** Colon & Rectal Surgery, 10627 Harborough Place, Richmond VA 23233

*Roanoke Academy of Medicine*

**Alfred A. Durham, MD,** Orthopedic Surgery, 2794 Summit Ridge Road, Roanoke VA 24012

**Clifford A. Nottingham, III, MD,** Family Practice, 2900 Peters Creed Road, Roanoke VA 24019

**George W. Ford, MD,** Occupational Medicine, 3835 Bosworth Drive, SW, Roanoke VA 24014

*Rockbridge County Medical Society*

**Thomas C. Lewis, MD,** Internal Medicine, Rockbridge Professional Building, Lexington VA 24450

**Sanford B. Radom, MD,** Radiology, 306 Overhill Drive, Lexington VA 24450

*Southside Virginia Medical Society*

**Thuy Nguyen Ho, MD,** Obstetrics/Gynecology, 603 South Sycamore Street, Petersburg VA 23803

**Fumikazu Kawakami, MD,** Internal Medicine, 602 North 6th Avenue, Hopewell VA 23860

**Marc Stephen Kramer, MD,** Family Practice, 312 Lexington Road, Richmond VA 23226

**Hsing-Wu Lin, MD,** Cardiology & Internal Medicine, 700 Okuma Drive, Chester VA 23831

**Michael E. Ramirez, MD,** Family Practice, Box 309, Powhatan VA 23139

**Michael C. Schmitt, MD,** Emergency Medicine, Route 2, Box 395, Farmville VA 23901

**William C. Williams, III, MD,** Family Practice, Box 586, Farmville VA 23901

*Southwestern Virginia Medical Society*

**Richard C. Gillett, Jr., MD,** Family Practice, 600 Seventh Street, Radford VA 24141

**John Newton Rust, MD,** Pathology, Route 2, Box 161-A, Purcellville VA 22132

*Tri-County Medical Society*

**E. D. Munthali, MD,** Internal Medicine, 5176 Foxboro Landing, Virginia Beach VA 23464

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# Balloon Catheterization of the Iliac Artery: Results in 34 Patients

H. A. Wellons, Jr., MD, C. J. Tegtmeyer, Jr., MD, and I. K. Crosby, MD,
*Charlottesville, Virginia*

Percutaneous transluminal angioplasty by the Gruntzig balloon catheter technique is gaining wide acceptance in the United States. In a series of 34 patients, the authors found the procedure valuable not only for isolated iliac obstruction but also in conjunction with distal bypass grafts.

Charles T. Dotter was, in 1963, the first to develop a technique of percutaneous transluminal angioplasty for the treatment of atherosclerotic occlusive lesions in the superficial femoral artery.[1] In his original technique, the size of the graduated tapered catheters was limited because of the resulting puncture in the femoral artery. There was little enthusiasm for this technique in the United States, although it was viewed with great interest in Europe.

The technique was advanced by the development of a caged balloon catheter by Porstmann in 1973,[2] which allowed passage through the femoral artery of a small-bore catheter that, once positioned within the diseased segment, could be expanded. A modified version of this technique was adopted by Dotter.[3] Percutaneous transluminal angioplasty was brought to its current state of the art with the introduction by Gruntzig of the balloon catheter.[4,5] This double lumen catheter, the balloon segment of which is manufactured in various lengths and inflated diameters, allowed much greater versatility in the balloon dilation procedure, in that a specific catheter could be selected according to the individual obstruction and calibre of vessel.

Since introduction of the technique of percutaneous transluminal balloon angioplasty at the University of Virginia Hospital in 1978, we have performed 34 procedures for iliac occlusive disease.

From the Departments of Surgery (Dr. Wellons and Dr. Crosby) and Radiology (Dr. Tegtmeyer), the University of Virginia. Address correspondence to Dr. Wellons at Box 181, University of Virginia Medical Center, Charlottesville VA 22908.

Submitted 5-7-81.

## Material and Methods

Between October 1, 1978, and March 31, 1981, percutaneous transluminal balloon angioplasty (PTBA) has been selectively utilized for iliac occlusive disease in 31 patients. Whereas 18 patients have had PTBA as an isolated procedure, 13 have had PTBA performed in conjunction with distal bypass operations. Fifteen distal bypass procedures

were performed in the 13 patients. Twenty-three of the patients were male and eight female, with an age range of 47 to 84 years (average age, 60). All patients had disabling symptoms, with claudication being present in all, rest pain in ten, ulceration in two, and gangrene in one.

Patient selection for PTBA was made on the basis of 1) a discrete stenosis in the iliac system; 2) medical contraindications to operative intervention; or 3) the presence of iliac lesions of uncertain hemodynamic significance in patients for whom a distal bypass procedure was planned. All patients had complete angiographic studies performed prior to the PTBA procedure. Hemodynamic data were obtained prior to angioplasty by measuring systolic pressure gradients across the lesion in all but two patients. Studies, including a determination of the brachial/ankle pressure index and pulse volume recordings with a pneumatic segmental plethysmography (Pulse Volume Recorder, Life Sciences, Greenwich, Connecticut), were obtained in most patients prior to and after operation.

## Results

In all patients, there was an immediate improvement in hemodynamic data as measured by systolic gradients across the lesion. In those patients undergoing angioplasty alone, the pre-PTBA gradients ranged from 10 mmHg to 122 mmHg (average, 53.5 mmHg), and post-PTBA gradients ranged from 0 mmHg to 43 mmHg (average, 8.3 mmHg). In those patients undergoing angioplasty plus a distal bypass procedure, the pre-PTBA pressures ranged from 0 mmHg to 100 mmHg (average, 29.9 mmHg), and the post-PTBA, 0 mmHg to 25 mmHg (average, 2.1 mmHg). In only five patients did a significant gradient remain following angioplasty, and even in those five there was a marked reduction in gradient.

Thirteen patients underwent 15 distal bypass grafting procedures in conjunction with balloon angioplasty. Nine of these operations were for femoral-popliteal bypass grafts. In one instance, the distal bypass grafting procedure preceded the iliac balloon angioplasty, and in a second case, the distal procedure was performed four months following a successful iliac angioplasty.

Only one immediate complication was encountered, thrombosis of the left iliac artery. In that instance, thrombectomy through the left artery was accomplished with good restoration of flow, and this vessel was utilized as the inflow source for a femoro-femoral crossover grafting procedure. Followup in all patients has been maintained, extending from one week to 26 months (average, 11.2 months).

Of the 19 patients having PTBA alone, five were asymptomatic and nine were improved, with only one patient having no improvement and one patient becoming worse. There were two late deaths, one secondary to complications of chronic renal failure and the other secondary to acute myocardial infarction. Both of these patients were symptomatically improved at the time of their death.

Followup of the 13 patients undergoing operative procedure in conjunction with PTBA revealed that two were completely asymptomatic, nine were significantly improved, and only one had no improvement in symptoms. There was one death due to an acute myocardial infarction in a patient who was asymptomatic at the time of his death.

Although there have been no late complications documented secondary to angioplasty, there have been two patients who developed a restenosis in the iliac vessel distal to the site of previous angioplasty. In addition, there has been one occlusion of a distal bypass graft which has required reoperation for relief of symptoms.

Late angiographic studies have been done only in those patients developing progressive symptoms. In all instances, there was no evidence of failure of the angioplasty to relieve the stenotic area. In two instances of restenosis, it was felt that a more distal lesion had been overlooked in the original procedure. In both instances, a repeat dilation procedure was successful. One patient, who underwent a distal bypass grafting procedure following an external iliac balloon dilation procedure, had resection of the iliac lesion on the election of the surgeon, although a satisfactory hemodynamic and radiographic result had been achieved with the first procedure.

## Discussion

Percutaneous transluminal angioplasty by the Gruntzig balloon catheter technique is rapidly becoming a well-established procedure in the United States.[6-11] The success of the technique appears to be related to several factors, including its flexibility; its small diameter, which is important in avoiding complications at the site of arterial puncture; and its versatility, which is due to the manufacture of catheters with wide selection of balloon diameters and lengths to meet specific situations. In addition to the femoro-femoral approach, the catheter can be passed via the axillary artery in selected cases.[12] In comparison with the original Dotter technique, several advantages are readily evident. First, access to

larger blood vessels is readily available with no increase in the external diameter of the catheter, which has to penetrate the access artery. Second, a "static" dilation is performed as the balloon catheter remains stationary at the point to be dilated, while the inflating balloon compresses the atheromatous material against the wall of the artery. In contrast, in the original Dotter technique, tapered catheters were wedged across the area of obstruction, thereby theoretically increasing the risk of embolization of atheromatous debris and causing a "snowplow" obstruction of side branches.

The indications for percutaneous transluminal balloon angioplasty in the treatment of iliac occlusive disease are identical to those for surgical intervention, namely, the presence of disabling claudication in the legs, the presence of rest pain, ischemic ulceration, impending gangrene or overt gangrenous changes. Minimal symptoms or demonstration of mild obstructive disease are not considered to be indications for angioplasty, nor should angioplasty be considered as a prophylactic procedure. Not infrequently, isolated iliac stenoses of questionable hemodynamic significance may occur

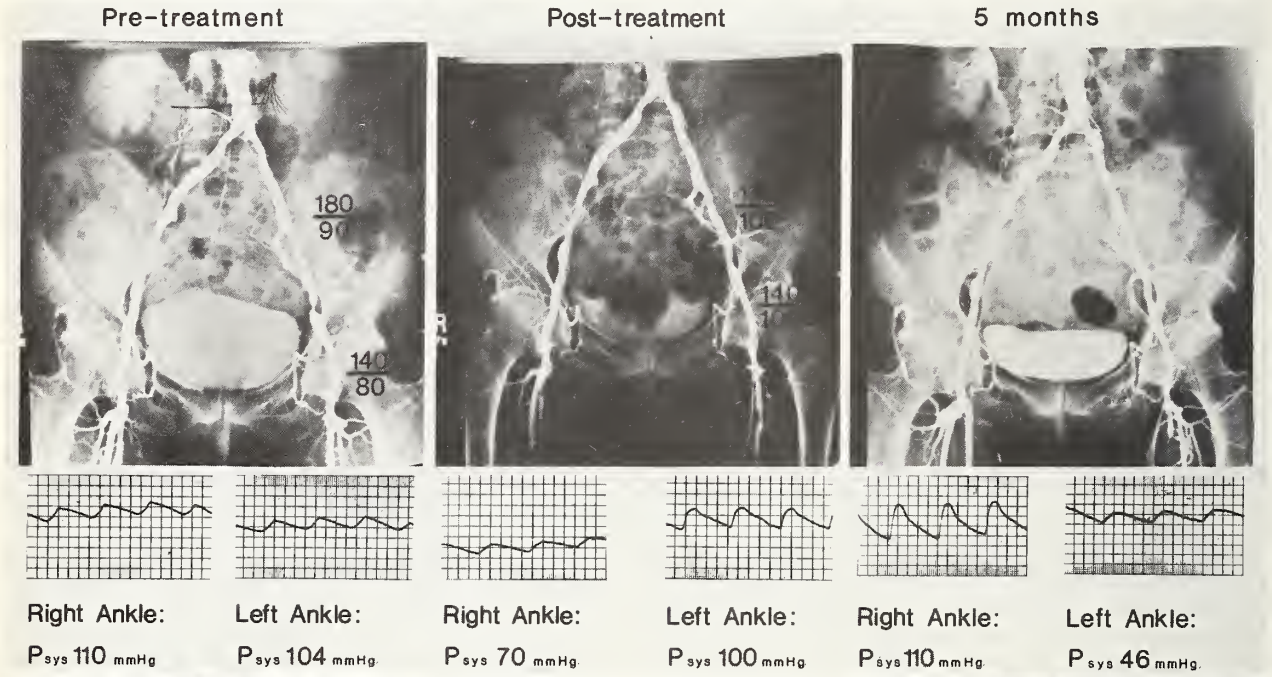


**Fig. 1A. above. Pre-treatment, post-treatment and followup angiograms demonstrate anatomic and hemodynamic improvement obtained by balloon angioplasty.**

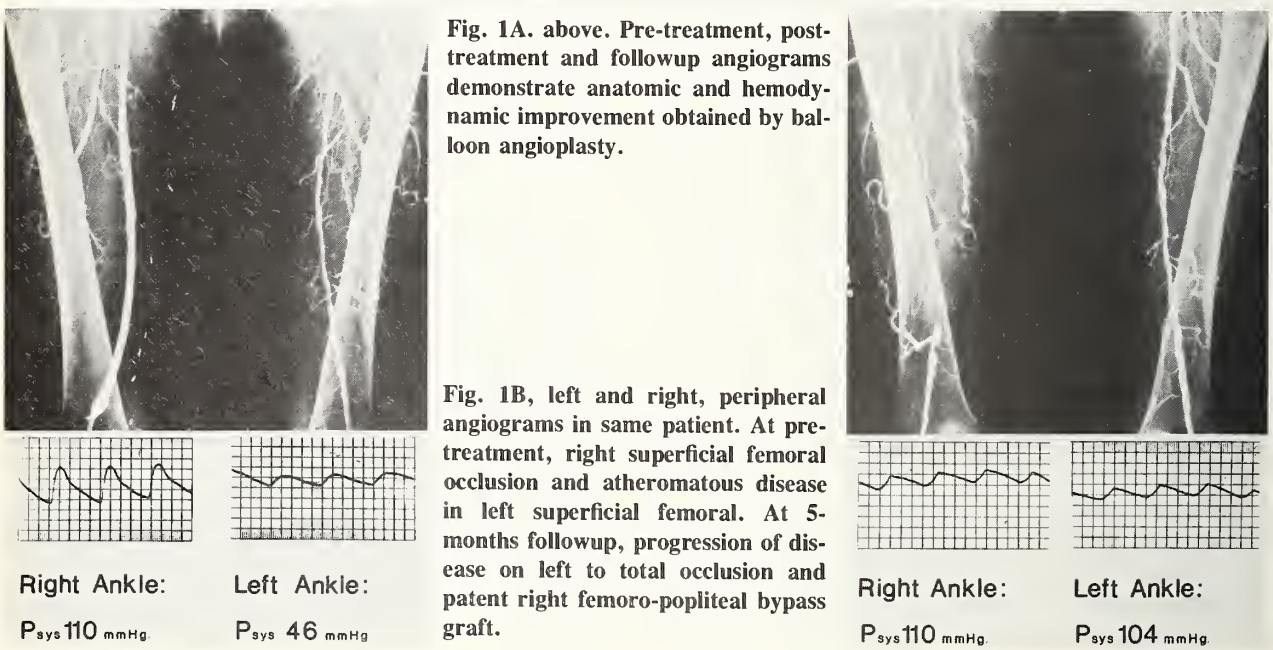


**Fig. 1B, left and right, peripheral angiograms in same patient. At pre-treatment, right superficial femoral occlusion and atheromatous disease in left superficial femoral. At 5-months followup, progression of disease on left to total occlusion and patent right femoro-popliteal bypass graft.**

in patients who are undergoing distal bypass procedures. We feel that balloon angioplasty may be a valuable adjunct in these situations to insure adequate inflow for the distal bypass. Occasionally, balloon angioplasty of an isolated iliac lesion in the face of distal occlusive disease will improve hemodynamics to a sufficient degree that a distal bypass grafting procedure becomes unnecessary. Non-invasive testing by segmental plethysmography and determination of ankle systolic pressures with the Doppler will identify those patients with no hemodynamic improvement who will need a distal bypass grafting procedure. Although our long-term follow-up is limited, the clinical results have been quite satisfactory, with improvement in all but two patients having angioplasty alone and in all but one patient who had balloon angioplasty in conjunction with a distal bypass grafting procedure.

An example of a patient undergoing a combined procedure is illustrated in Figs. 1A and 1B. Initial arteriograms revealed a severe left external iliac obstruction as well as bilateral superficial femoral disease, with a total occlusion of the superficial femoral on the right. A balloon angioplasty was performed at the external iliac lesion on the left with immediate improvement in hemodynamics in the right lower extremity. Due to progression of symptoms on the left side, a repeat study was performed five months later, revealing maintenance of a good result at the site of external iliac angioplasty but a near total occlusion of the left superficial femoral artery. A left femoral popliteal bypass grafting procedure relieved the patient's severe claudication. This case illusrates two points: one, that arteriosclerosis is a progressive disease, and, two, that percutaneous transluminal balloon angioplasty does offer a suitable alternative, particularly in patients who have discrete isolated vascular lesions.

Although we have had few complications in the iliac area, others have reported a 3% to 5% risk of peripheral embolization.[6] Because of the risk of embolization, this technique has not been advised for the cerebrovascular tree. Our only immediate complication was an instance of thrombosis at the site of arterial puncture. A thrombectomy restored circulation and a crossover femoral-to-femoral bypass graft was performed, using the dilated iliac artery as the inflow source.

The pathophysiology of the dilation process is still not yet well understood, as there have been limited instances in which histologic study has been available. Initially it was felt that the mechanism of PTBA was the molding and compression of the

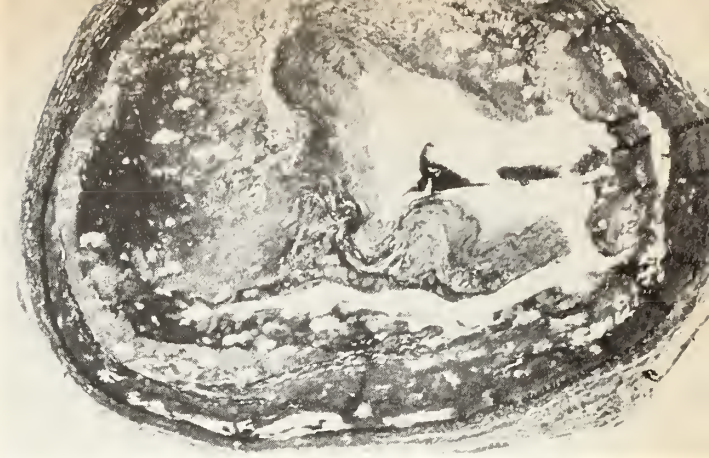

**Fig. 2. Microscopic section of dilated external iliac vessel demonstrating "controlled" injury with fissuring of intima and atheroma and partial disruption of media but with lumen maintained.**

atheromatous lesion against the arterial wall, thereby expanding the lumen. However, the mechanism of PTBA appears to be that of a controlled injury: the atheroma and the intima are fissured, and the media is stretched or partially disrupted. The vessel then expands to accommodate the arterial flow. Healing is by fibrosis and neo-intima formation, similar to that seen after endarterectomy.[13,14]

We have obtained only one pathological specimen in a case in which the dilated area was electively resected at the time of the distal bypass grafting procedure (Figure 2). A cross-section of the vessel at the point of dilation shows that there is intimal disruption and, in addition, residual thickness of the arterial wall due to the atheromatous disease.

It is extremely important that there be close cooperation between the surgeon and the angiologist in the selection and management of patients undergoing balloon angioplasty. It is also important that the angiologist be well-trained in the technique of transluminal balloon angioplasty if complications from the procedure are to be minimized.

## Summary

Percutaneous transluminal balloon angioplasty has been used with initial success in 31 patients. We have found that PTBA is a valuable procedure in the selected patient, not only with isolated iliac obstruction but also for patients undergoing distal bypass grafting procedures.

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# Can You Diagnose This?

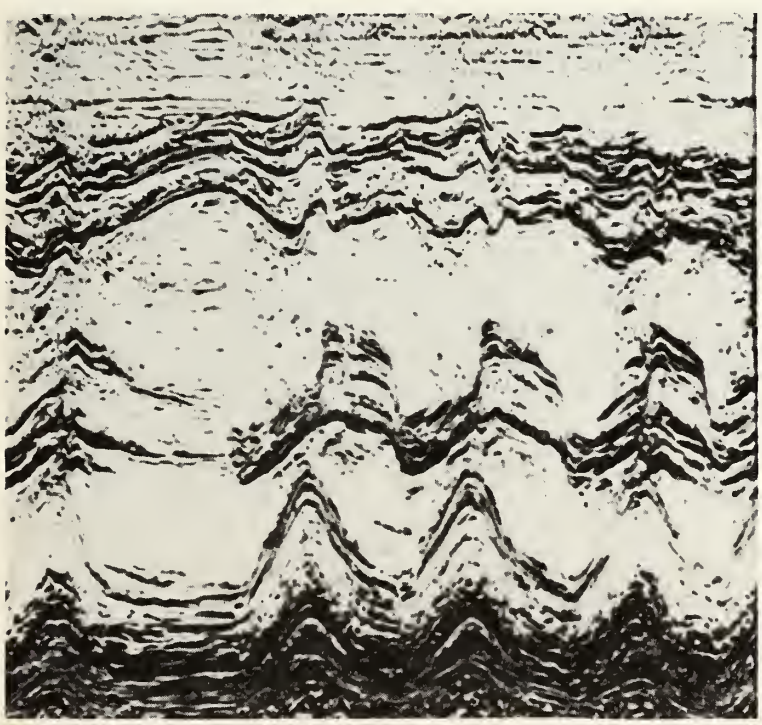
A medical puzzle prepared by Walter Paulsen, MD, *Richmond, Virginia*

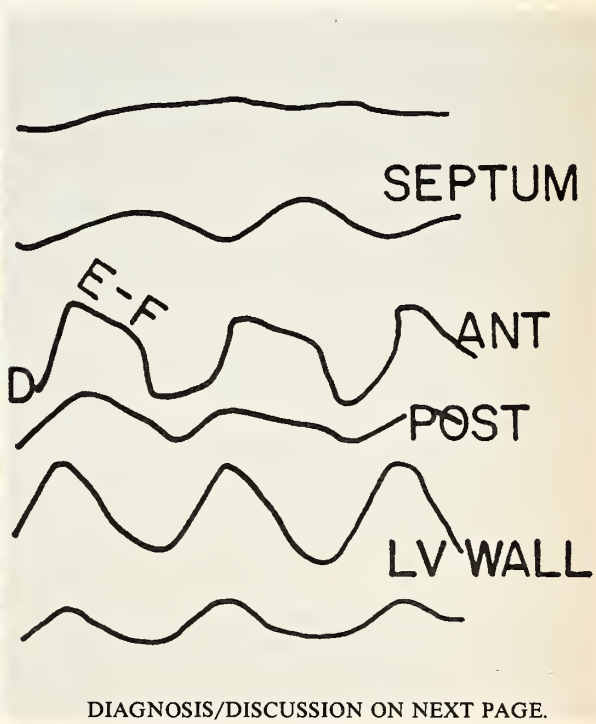
A 46-year-old housewife was referred to the Medical College of Virginia for evaluation of recent onset of atrial fibrillation accompanied by shortness of breath with mild activity.

Physical examination revealed the radial pulse to be 90-120 beats per minute and irregular, the arterial blood pressure to be 120/80, and the respiratory rate to be 24 per minute. The apex beat was located in the 5th intercostal space 7 cm to the left of the midline. A left parasternal heave was present. The intensity of the first heart sound varied from beat to beat. A blowing holosystolic murmur radiating to the left axilla and an early diastolic sound followed by a low pitched mid-diastolic rumble were audible at the mitral area. Auscultation of the lungs revealed bibasilar rales. There was no jugular venous distention, hepatomegaly, or peripheral edema. An ECG showed atrial fibrillation with no other abnormalities. A chest x-ray revealed the heart to be normal in size. The left atrial appendage was prominent and signs of pulmonary venous congestion were present. An echocardiogram was performed and is reproduced below. What does the echocardiogram show?

The patient underwent cardiac catheterization, and subsequently a surgical procedure was performed, resulting in marked symptomatic improvement.

From the Cardiovascular Division, Medical College of Virginia/Virginia Commonwealth University. Prepared under the direction of Donald W. Romhilt, MD. Address correspondence to the author at Box 51, MCV Station, Richmond VA 23298.



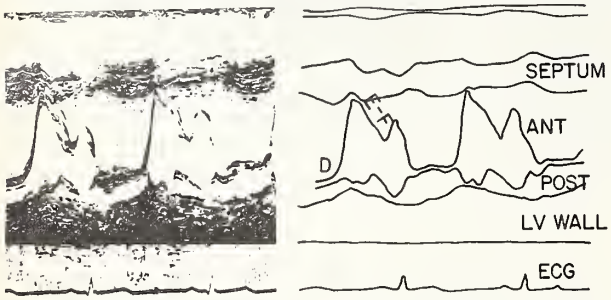



DIAGNOSIS/DISCUSSION ON NEXT PAGE.

DIAGNOSIS: Mitral stenosis.

## DISCUSSION

The normal mitral valve has thin leaflets which execute a characteristic motion during diastole, as




shown in the normal echocardiogram above. At the onset of diastole, the mitral valve opens, the anterior leaflet moves anteriorly toward the interventricular septum, and the posterior leaflet moves posteriorly toward the posterior left ventricular wall. After reaching a fully open position to allow blood to enter the left ventricle from the left atrium, the two leaflets immediately begin to close and by mid-diastole the leaflets have almost approached the closed position. The rate at which the anterior leaflet reaches this position, termed the diastolic closure rate, is measured by the slope of the line it produces (E-F slope). Shortly thereafter the atrium contracts and kicks the valve open again. The onset of systole causes the valve leaflets to close. Thus, we have the characteristic "M" pattern of anterior mitral leaflet diastolic motion. The posterior leaflet, a smaller structure, executes a mirror image motion in minature.

The M-mode echocardiographic features of mitral stenosis are well demonstrated by the patient's echocardiogram on the previous page.

1. The leaflets are thickened and appear as multilayered. The presence of calcium (not noted in this example) would impart an irregular appearance to the multilayered pattern. The normal M-shaped pattern of anterior mitral leaflet diastolic motion is lost due to the persistent diastolic pressure gradient between the left atrium and left ventricle, which tends to hold the valve in the open position throughout diastole, thereby abolishing mid-diastolic closure of the valve and reducing the diastolic closure rate (E-F slope) of the anterior mitral leaflet. In general, the more severe the stenosis, the greater the reduction of the E-F slope. Unfortunately, any condition associated with a reduced rate of ventricular filling (e.g., reduced left ventricular compliance, low cardiac output) will also decrease the E-F slope. Thus, there can be false positives in the diagnosis of mitral stenosis if this criterion alone is used, and measurement of the E-F slope is not always reliable in estimating the severity of mitral stenosis.

2. Separation between the anterior and posterior mitral valve leaflets is diminished as a result of fusion of the commissures, and during diastole the two leaflets function as a single unit, the posterior mitral leaflet moving anteriorly in the same direction as the anterior leaflet. (Normally the posterior leaflet moves posteriorly.)

One of the factors that determines whether a stenosed mitral valve is suitable for a commissurotomy is its pliability. Pliability can be estimated echocardiographically by measuring the total amplitude of the anterior leaflet from the onset of diastole to its maximum opening during early diastole (D-E in both echocardiograms show here). In general, a mitral valve that is free of calcium and has a D-E amplitude of greater than 20 mm is suitable for commissurotomy.

The mitral valve echocardiogram of the patient exhibits the three cardinal features of mitral stenosis: 1) thickened leaflets, 2) a reduced E-F slope, and 3) anterior motion of the posterior leaflet during diastole. In addition, the valve was judged to be free of calcium and to be pliable (maximum opening excursion of the anterior leaflet was greater than 20 mm) and was therefore felt to be suitable for commissurotomy. Subsequent cardiac catheterization confirmed the presence of mitral stenosis and defined the degree of stenosis to be severe. In addition, mild mitral regurgitation was noted and the patient underwent a successful mitral valve commissurotomy.

With rare exceptions M-mode echocardiography is diagnostic for mitral stenosis. However, quantitative assessment of the severity of the stenosis is less than perfect. In this regard, two-dimensional echocardiography is proving to be more reliable and allows accurate assessment of mitral valve orifice size.

# Morbidity and Mortality Conference: Infection and Felty's Syndrome

From the Medical College of Virginia/Virginia Commonwealth University.
Case Presentation by Robert M. Centor, MD.
Clinical Discussion by Bruce H. Littman, MD.
Pathology Discussion by Katherine M. Jasnosz, MD.

## Presentation of Case

Dr. Robert M. Centor: A 54-year-old white male was admitted to the Medical College of Virginia Hospitals for evaluation of neutropenia. He was in good health until five years prior to admission, when he was noted to have seropositive rheumatoid arthritis, which subsequently became severe and deforming with involvement of the hands, wrists, elbows, feet, knees, hips, shoulders and jaws. One year prior to admission he developed neutropenia, with his peripheral WBC ranging from 1550-2500/cumm with "few neutrophils noted on the differential." Three weeks prior to admission he was admitted to another hospital for abdominal pain, nausea and vomiting. An upper GI series was normal but an endoscopy revealed "duodenitis". A bone marrow examination was performed, and the only comment available indicated that "no iron stores were present."

From the Departments of Medicine and Pathology, Medical College of Virginia.

This is the third in a series of transcripts of the Morbidity and Mortality Conferences at the Medical College of Virginia. They are prepared under the direction of Richard J. Duma, MD, chairman, Division of Infectious Diseases. Correspondence should be addressed to Dr. Duma at Box 49, MCV Station, Richmond VA 23298.

Submitted 2-11-81.

His past medical history was remarkable in that for five years he had adult-onset diabetes mellitus, which was controlled with diet. Two years prior to admission he underwent a surgical revision of his right shoulder and one year later a revision of his right wrist.

Medications at the time of admission included cimetidine, magnesium hydroxide-aluminum hydroxide gel, prednisone, oxycodone hydrochloride (Percodan®) and ferrous sulfate. Previous medications for arthritis included gold (discontinued because of mouth ulcers), penicillamine (judged as "ineffective"), cyclophosphamide (discontinued because of a rash) and ibuprofen (judged as "ineffective").

Physical examination on admission revealed an afebrile, thin, white male. A decreased range of motion of the neck was noted as well as an increased diameter of the chest. The lungs were clear to auscultation, and a regular rhythm without murmurs, rubs or gallop was noted. A spleen tip was detected on palpation of the abdomen. Musculoskeletal exam was remarkable for ulnar deviation of the fingers and synovial thickening of the metacarpophalangeal joints. He had limited range of motion of the wrists, knees and shoulders.

Laboratory values on admission were: hemoglobin 9.4 gm/dl, WBC 6500/cumm with a differential of 3% neutrophils, 7% bands, 67% lymphocytes and 23%

monocytes. Automated chemistries (SMAC) were remarkable only for a glucose of 174 mg/dl. A normal sized heart and clear lung fields were seen on chest x-ray.

The first five days of hospitalization were characterized by daily fevers up to 102°F. A rheumatoid factor was positive at a titer of 1:640. A liver-spleen scan confirmed the presence of an enlarged spleen.

By the 8th hospital day, multiple blood and urine cultures were negative. His temperature was 103.6°F. His WBC was not 4500/cumm with 4% bands and 0% neutrophils. A bone marrow aspirate revealed normal cellularity; however, iron stores were markedly diminished.

On the 10th day cefazolin and gentamicin were started empirically. However, no cause for his fever was discovered, and his temperature ranged from 103-104°F daily.

On the 14th day, while his temperature was 104°F, his WBC fell to 1400/cumm with 1% neutrophils and 1% bands. A variety of cultures for bacteria, mycobacteria and fungi were negative. Ultrasound of the gallbladder and pancreas were normal. His chest x-ray remained clear. Thyroid functions were normal. Candida and PPD skin tests were negative.

On the 17th day intravenous fluids were begun because his blood pressure fell to 85/60. Gentamicin and cefazolin were discontinued.

On the 18th day a gallium scan was interpreted as normal; particularly, no abnormal areas of increased uptake were observed. All cultures remained negative. His fevers persisted. Isoniazid and ethambutol were started empirically as a therapeutic trial. Lithium was started in an attempt to increase his total neutrophils. His nutrition was judged to be a severe problem, with his albumin generally in the range of 1.9 gm/dl.

By the 22nd day a Raji cell assay for immune complexes were reported as 42 μg/ml (normal up to 25). His $C_3$ was 36% of standard (normal 55-160%); serum cryoglobulins were negative. A connective tissue consultant suggested plasmapheresis be performed. A lithium blood level was 0.3 mEq/1 (therapeutic levels 0.5–1.5 mEq/1).

On the 23rd day his temperature rose to 104°F. For the first time he developed atrial fibrillation with a rate of 150 per minute. Arterial blood gases were pH 7.54, $PaO_2$ 68 torr (mm Hg) and $PaCO_2$ 35 torr (mm Hg). The patient was noted to weigh 95 pounds, down from 116 pound six days previously.

He was then transferred to the Coronary Intensive Care Unit, where significant laboratory data included: hemoglobin 8.3 gms/dl, WBC 5200/cumm with 4% neutrophils. Electrolyte studies revealed a $Na^+$ 123 mEq/1, $K^+$ 3.4 mEq/1, $Cl^-$ 92 mEq/1 and $CO_2$ 25 mEq/1. Urinalysis showed a specific gravity of 1.013 and was negative on microscopic examination. His BUN was 21 mg/dl.

Later that night the patient required resuscitation. A Swan-Ganz catheterization revealed a central venous pressure of 10 mm Hg, a pulmonary artery pressure of 30/20 mm Hg and a pulmonary capillary wedge pressure of 15 mm Hg. His cardiac output was 8 to 9 liters per minute. Gentamicin and cefazolin were reinstituted, and he was treated for septic shock. Trimethoprim/sulfamethoxazole and steroids were added.

The following day a large right mid-lung field infiltrate was detected. That night he again became hypotensive and died. An autopsy was performed.

**Radiography**

DR. KARTSEN F. KONERDING: Radiographs of this patient's wrist 18 months prior to death show advanced changes of rheumatoid arthritis, involving primarily the carpus. There is extensive erosion involving all joints of the wrist, as well as volar subluxation (Figure 1). Complete films of the hands and other joints are not available. Shortly after these first films, the right wrist was operated upon, and the first metacarpophalangeal joint was fused.

A chest film obtained three days prior to death shows no acute abnormalities. Another chest film one day prior to death (Figure 2) shows consolidation of the anterior segment of the right upper lobe. The sudden development of this consolidation raises the possibilities of an acute pneumonia or pulmonary infarction.

## DISCUSSION

DR. BRUCE H. LITTMAN. Felty's syndrome was originally described in 1924 as the triad of rheumatoid arthritis, splenomegally and neutropenia. Subsequent reports described multiple granulocytic abnoralities, including shortened half-life (excessive destruction), defective production and impaired function, abnormalities which lead to increased susceptibility to infection. Approximately 60% of reported cases were associated with one or more infections, usually caused by common bacterial pathogens most often infecting the skin or the respiratory tract.[1] The seriousness of such complications was well illustrated by the present case.

Rheumatoid arthritis affects 3.2% of the adult, non-institutionalized population using the criteria for "probable rheumatoid arthritis" published by the American Rheumatism Association. Thus over 5 mil-

**Fig. 1. Radiographs of wrist 18 months prior to death. Severe involvement of carpus and volar subluxation.**

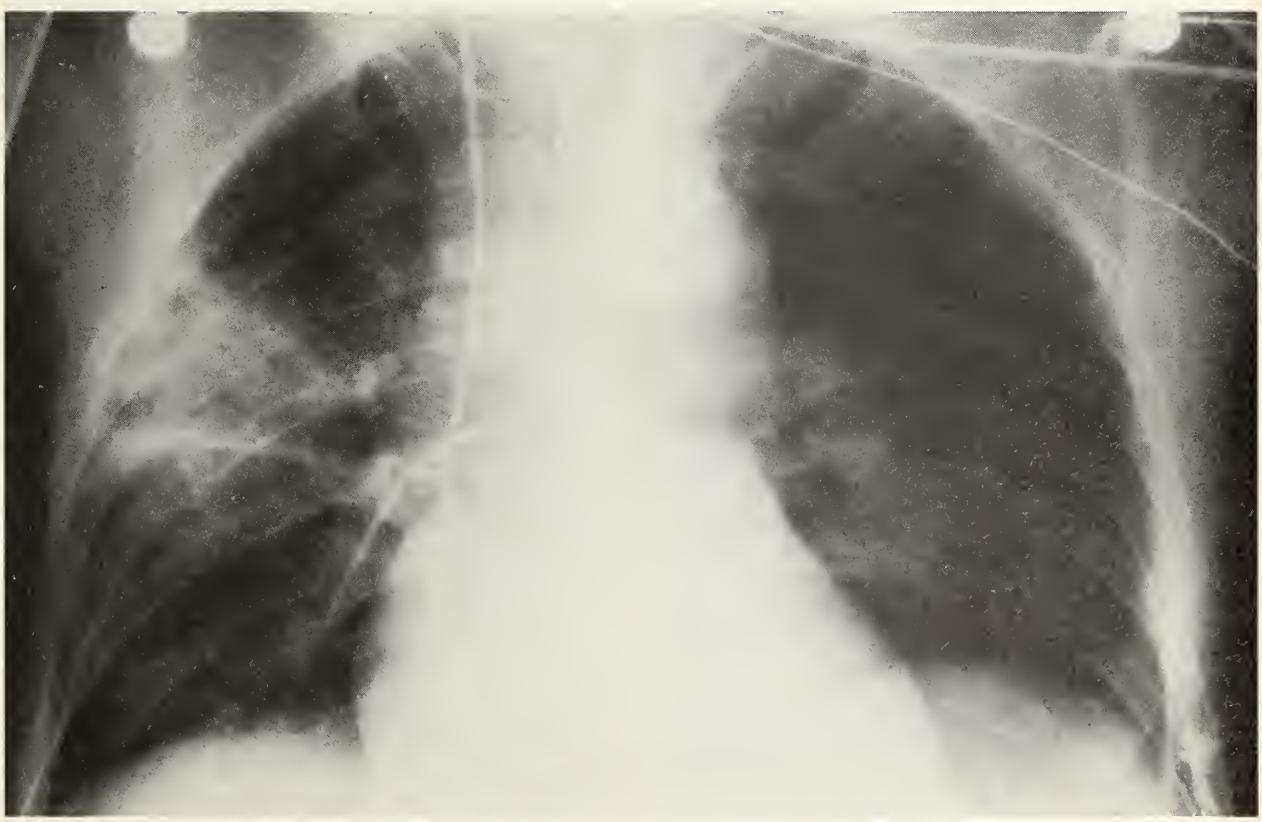


**Fig. 2. Chest film one day prior to death. Note infiltrate in right upper lobe.**

lion Americans suffer from this disease. The prevalence is highest in females and increases with age.

Felty's syndrome, i.e., the occurrence of splenomegaly and neutropenia, occurs in less than 1% of patients with rheumatoid arthritis, but splenomegaly alone is common. The syndrome occurs usually in rheumatoid patients over the age of 50 and is rare in blacks.[2] It appears that Felty's syndrome usually occurs in patients who have had rheumatoid arthritis for more than ten years, although occasionally it may be the presenting problem, with arthritis occurring at a later date.[1]

The clinical features are usually those of classic seropositive rheumatoid arthritis with varying degrees of activity, elevated erythrocyte sedimentation rate, splenomegaly (mean splenic weight four times normal), mild hepatomegaly usually without liver function abnormalities and often extraarticular manifestations of rheumatoid arthritis, such as nodules, Sjögren's syndrome, lymphadenopathy, pleuritis, episcleritis and neuropathy. Weight loss may be a prominent symptom. Lastly, skin changes, including brown pigmentation, especially over the tibia, and large skin ulcerations in this area are common. These may be related to vasculitis and increased capillary fragility.[1]

Ninety-eight percent of cases have positive rheumatoid factor tests in high titer. A monoclonal rheumatoid factor may be present. Positive ANA and LE cell tests are common (37-100%). Antibodies reactive with granulocytes may also be present. Almost all patients have circulating immune complexes as detected by several different techniques, and cryoglobulins are present in 75-100% of patients.[3] Abnormalities in cell-mediated immune function have also been reported with 25% of patients being anergic on delayed hypersensitivity skin testing.

Patients with Felty's syndrome have both a relative and absolute granulocytopenia. The onset of leukopenia may be rapid. Spontaneous remissions are rare. With infection or stress the granulocyte count may rise to normal but is not elevated, thus masking infection. The bone marrow may be normal, but usually there is mild myeloid hyperplasia, with an increase in immature cells. Rarely, the marrow is hypocellular. Frequently, patients are mildly thrombocytopenic, but this is not usually severe enough to produce purpura. The anemia of chronic disease is common.

Since splenomegaly is always present and since hematologic improvement usually follows splenectomy, a role for the spleen in causing granulocytopenia is likely. Splenic sequestration and/or destruction of granulocytes is favored by many investigators, while others view the spleen as the source of a humoral inhibitor (antibodies) of granulocyte production. It is now considered likely that both mechanisms are contributing to leukopenia and impaired host defense.

Both anti-neutrophil antibodies and immune complexes adhere to the granulocyte surface, resulting in splenic sequestration. Sequestration of these cells within the spleen is thought to be due to antibody-induced excessive margination. Neutrophils are viable but have decreased availability for entry into the circulating pool, since they are adherent (marginated) to endothelial cells. Additionally, white cell function may be impaired by antibodies to cell surface receptors. The presence of such immunoglobulin molecules bound to neutrophils can be demonstrated. These also may affect neutrophil survival. (In early experiments, plasma from a patient with Felty's syndrome did cause transient granulocytopenia in a normal recipient.) Such antibody molecules, bound either directly or as an immune complex to the neutrophil membrane, are produced to a great degree by the spleen. Granulocyte surface immunoglobulins may be observed to fall after splenectomy.[4]

In addition to the above mechanism, granulocytopenia may result from impaired production not detectable by simple bone marrow examination. Using bone marrow culture techniques, some investigators have studied levels of colony stimulating factor, a glycoprotein required for normal bone marrow stem cell differentiation into myelocytes. Colony stimulating factor was reduced in all patients studied, although an abnormal inhibitor was thought to be present. Impaired responsiveness to this glycoprotein in the presence of plasma from patients with Felty's syndrome was also demonstrated. Additionally, mononuclear cells (T-lymphocytes) from patients with Felty's syndrome have colony formation suppressed by normal marrow cells[5]; in one recent report, this abnormality was found in four of nine patients. Thus granulocytopenia has been shown to be induced by either homoral or cellular immune mechanisms in patients with Felty's syndrome.

Infection is a major complication of Felty's syndrome. The infections are most commonly skin (26%) and pulmonary (24%), although urinary tract infection, sinusitis or otitis and septic arthritis also are increased. No well-controlled studies of the incidence and severity of infections in patients with Felty's syndrome exist. It is possible that rheumatoid arthritis alone predisposes to infection, and none of the reported studies utilizes a suitable rheumatoid control group. Staphylococci, streptococci and gram-negative bacilli are the usual infecting organisms. These infections usually respond to antibiotic therapy.[1]

**Table 1. Felty's Syndrome: Aspects and Considered Forms of Treatment**

- Treat the rheumatoid arthritis: gold or D-penicillamine suggested.
- Treat infections. They usually respond to antibiotics.
- Splenectomy. Indicated for recurrent or serious infections.
- Plasmapheresis. Untested but theoretically helpful (removes immune complexes, antineutrophil antibodies, and humoral inhibitors of leukopoiesis).
- Corticosteroids. May help leg ulcers but may worsen infection.
- Lithium carbonate. Increases granulopoiesis.

Diminished host resistance to infection is thought to be due to more than simple granulocytopenia. Patients with Felty's syndrome do not respond to endotoxin or etiocholanolone with a leukocytosis, presumably due to leukocyte sequestration. Additionally, defective phagocytosis, chemotaxis and bacterial killing may be present in rheumatoid arthritis.[1]

There is no treatment which is 100% effective for Felty's syndrome. Suggestions for treating various aspects of the syndrome are summarized in Table 1.

Splenectomy has been used for over 50 years and usually results in a prompt reversal of granulocytopenia. The presence of serious or recurrent infection is the major indication for this procedure. Guidelines for selecting patients for splenectomy are not available.

Splenectomy results in a rise in leukocyte count within minutes or hours. Eighty-eight percent of patients respond to splenectomy immediately, although granulocytopenia recurs in 24%. In these patients leukocyte counts are generally higher than pre-splenectomy values. The effect of splenectomy on susceptibility or severity of infection is not known. In general, patients not infected prior to splenectomy remain free of infection, while infected patients do less well. Splenectomy is reported to speed healing of leg ulcers and improve synovitis in some patients. Splenectomy may also be performed for abdominal discomfort due to massive splenomegaly or because of esophageal varices. Medical treatment of the underlying rheumatoid arthritis with gold or penicillamine may result in improvement of granulocytopenia. Lithium salts stimulate granulopoiesis by augmenting production of colony stimulating factor. In Felty's syndrome, granulocyte counts rise in response to lithium treatment, but long-term responses have not been demonstrated.[6] Testosterone may also be used to stimulate granulocyte production, but of course it is not used in women. Lastly, high-dose corticosteriods may be beneficial.

## Pathology

Dr. Katherine M. Jasnosz: An autopsy was performed nine hours after the patient's death. External examination of the body revealed marked deformities of the metacarpalphalangeal joints, with interosseous muscle wasting and hyperpigmentation over the dorsal aspects of the hands. Direct examination of these joints was not permitted, but radiographic findings were compatible with rheumatoid arthritis. In addition, there was generalized muscle wasting of the lower extremities with evidence of healed leg ulcers. Close examination of the right hip joint (Fig 3) and the right knee joint revealed erosions and eburnation of their articular surfaces, compatible with non-specific degenerative joint disease.

The spleen was markedly enlarged (weight 620 grams), as shown in Figure 4. Histologic examination revealed passive congestion (Fig 5). Multiple sections of bone marrow were examined and were grossly unremarkable. Microscopically, the marrow was hypercellular, with proliferation of both myeloid and erythroid cell lines. The liver was enlarged (weight 2580

**Fig. 3. Head of right femur exhibits eburnation and erosions of articular surface.**

Fig. 4. Spleen, weight 629 grams (normal, 100-150 grams).

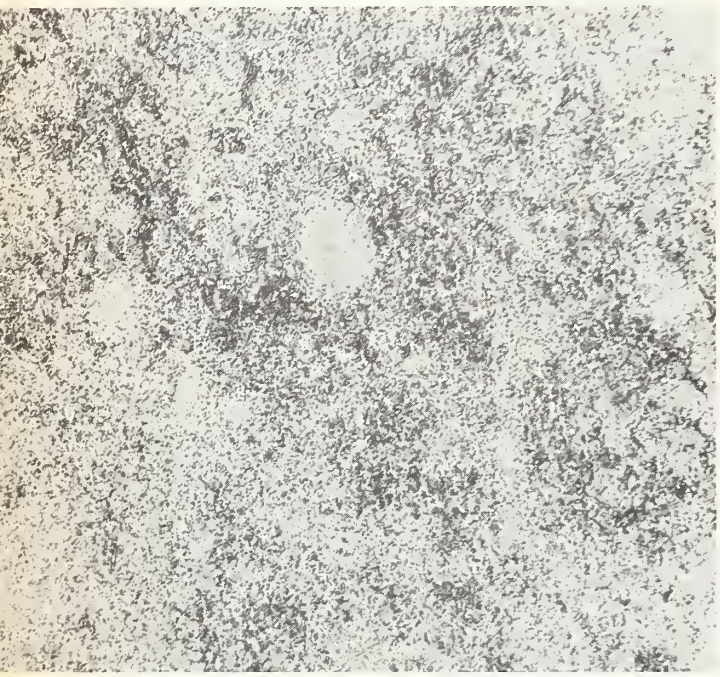
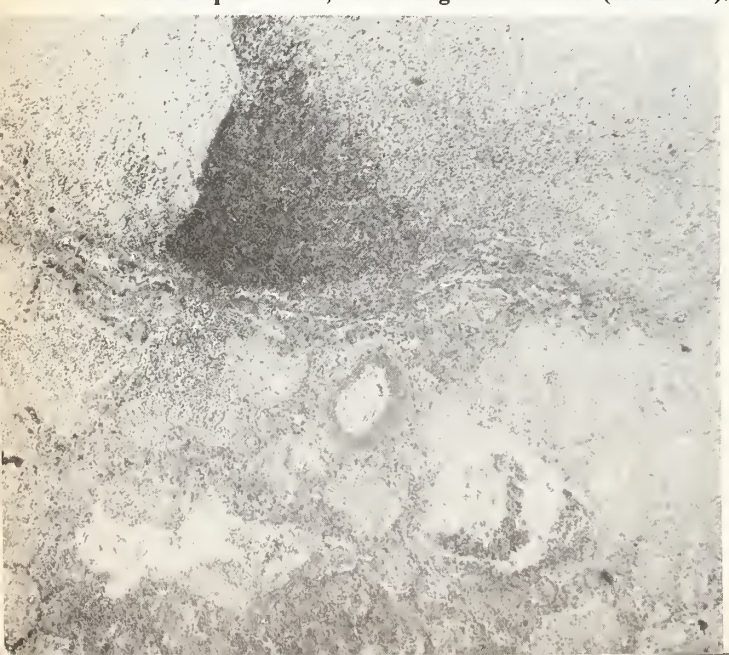


Fig. 5. Histologic section of spleen showing passive congestion. (H&E X52).

Fig. 6. Histologic section of right upper lung lobe showing bronchopneumonia, hemorrhage and abscess (H&E X40).



grams) and showed gross evidence of chronic passive congestion.

The findings directly related to the cause of death were limited to the respiratory tract. The chest cavity contained bilateral serous pleural effusions, with 1200 cc on the right and 1400 cc on the left. The lungs were congested and hyperemic (weight 1520 grams) and there was evidence of consolidation of the basal lobes. The right upper lobe was also consolidated and contained multiple small abscesses. Histologic examination of the lungs revealed multifocal bronchopneumonia and brochiolitis in all lung lobes, with intraalveolar hemorrhage and abscess formation in the right upper lobe (Fig 6). There was evidence of mild to moderate emphysema in both upper lobes. Lung and blood cultures at autopsy were positive for *Klebsiella pneumoniae.*

The findings at this patient's autopsy are consistent with the diagnosis of Felty's syndrome, metacarpal-phalangeal joint changes radiologically compatible with rheumatoid arthritis and marked splenomegaly. As in this case, in Felty's syndrome the histologic picture in the spleen and bone marrow is non-specific.[7] The spleen microscopically appears congested and may show dilated sinusoids with hyperplasia of the sinusoidal lining cells. The sinusoids may occasionally contain increased numbers of granulocytes and lymphocytes. Histologically, the bone marrow may show myeloid hyperplasia or maturation arrest, or it may be normal.

The immediate cause of death in this patient was related to infection, neutropoenia and a compromised immunologic status. The development of bronchopenumonia with abscess formation and the subsequent development of septic shock resulted in cardiorespiratory failure and death.

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# Late Surgical Reduction of Cervical Subluxations

Richard Whitehill, MD, and Dennis Lennox, MD, *Charlottesville, Virginia*

All too often the fate of the quadriplegic patient is assumed to have been completely decided within the first hours of injury. Indeed, it is accepted by most that under ideal circumstances, the more rapidly a "decompression" can be performed either by closed or open reduction or by excision of bony or disc fragments, the greater the chance of neurological recovery. Nevertheless, there are occasions when this is simply not possible. We describe here two recent cases of patients with cervical facet subluxations and associated major neurological deficits which had persisted for several months before presenting to us. In both cases a reduction of the spinal deformity was achieved only after lengthy surgery, including anterior resection of contracted and partially ossified scar tissue, and posterior dissection and reduction of the subluxated facet joints. In both cases the patients realized some degree of neurological recovery—enough in one, in fact, to permit the beginning of ambulatory training. In both cases the surgery eliminated severe neck pain and postural deformity.

**Case Report 1.**

CB, a 19-year-old white female, suffered a cervical spine injury with resultant incomplete quadriplegia in a motor vehicle accident. Although a C4, C5 fracture subluxation was initially misinterpreted as a congenital deformity, the patient was treated in Gardner Wells tong traction for approximately six weeks and at that point was transferred to the University of Virginia Hospital.

Neurological examination at the time of transfer confirmed that the patient had an incomplete quadriplegia with intact sensation to pinprick and light touch present in both lower extremities, and trace motor function present in the left quadriceps and ankle dorsiflexors. X-rays upon transfer showed a persistent 8-mm anterior subluxation of C4 or C5 with a unilateral posterior facet subluxation. A myelogram further confirmed secondary spinal cord compression. An attempt at reduction with halo traction proved unsuccessful, and at eight weeks post injury the patient underwent an anterior release at the C4, C5 interspace where the anterior longitudinal ligament and partially ossified intervertebral disc were divided and excised. Then, during the same anesthesia, the patient was turned into the prone position and underwent a posterior open reduction of the facet subluxation as well as a posterior C4 to C6 fusion utilizing for internal fixation two cerclage wires. This produced near anatomic reduction.

Postoperatively, the patient was maintained in a halo vest for ten weeks, at which point lateral flexion and extension x-rays of her spine showed that she had no instability. Neurologically, she has continued to improve and at the time of this report is ambulating pain free in the parallel bars.

From the Department of Orthopedics and Rehabilitation, University of Virginia Medical Center. Address correspondence to Dr. Whitehill at the Medical Center, Box 159, Charlottesville VA 22908.

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**Case Report 2.**

MM, a 16-year-old black male, suffered a C4, C5 fracture dislocation in a diving accident, with resultant incomplete C4 motor level quadriplegia. He was treated initially with Crutchfield tong traction for six weeks, followed by a soft collar for another five weeks, then was transferred to the University of Virginia Hospital. Neurological examination on transfer confirmed an incomplete quadriplegia in that the patient had sacral sensation but no motor function below a C4 motor level. In addition, he had severe neck pain and his head was tilted in such an acutely flexed position that he could not raise it to gaze straight ahead. Furthermore, he had severely painful dysesthesias in both lower extremities.

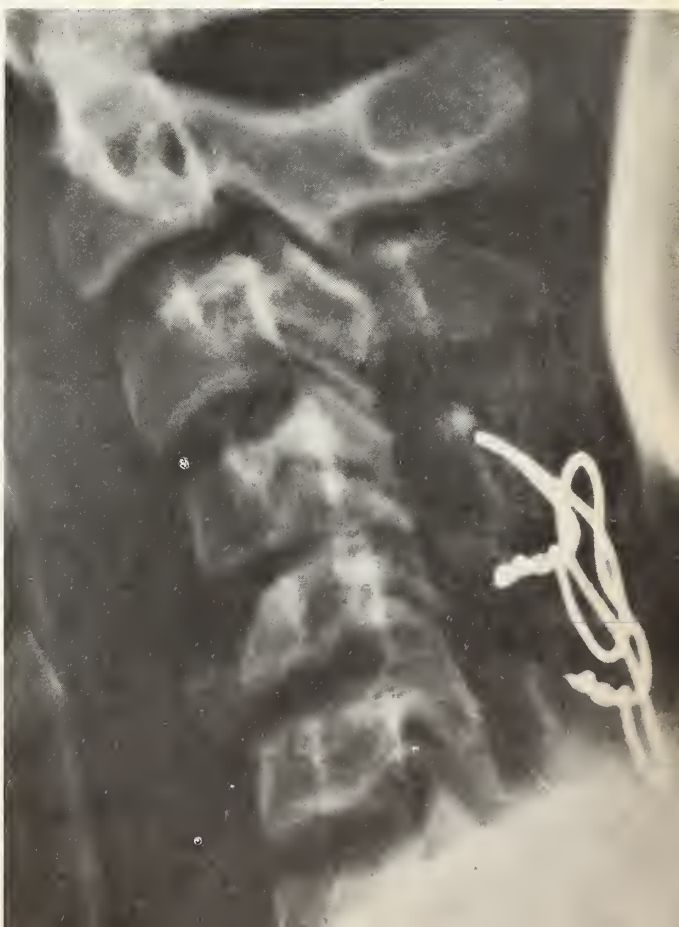
X-rays on transfer confirmed a C4, C5 fracture subluxation (Fig. 1A). A myelogram confirmed spinal cord compression. An attempt at closed reduction utilizing halo traction was unsuccessful, and at 12 weeks post injury the patient underwent the same procedures as in Case 1. (Figs 1B and 1C.).

Postoperatively, this patient is being managed in a halo vest. He is capable of gazing straight ahead, has no neck pain, and no longer has painful lower extremity dysesthesias. Neurologically, he remains unchanged from preoperative examinations.

▲ **Fig. 1A. Lateral x-ray shows persistent C4-C5 fracture subluxation. Note acute kyphotic deformity at C4-C5 with retropositioning of C5 within spinal canal.**

▲ **Fig. 1B. Intraoperative x-ray obtained as C4-C5 intervertebral disc space is being cleaned out, with lamina spreader in place between C4 and C5.**

▼ **Fig. 1C. Lateral x-ray shows end result of entire procedure following anterior release and C4 to C6 fusion. Note reduction of C4 on C5 as compared to Fig. 2A.**



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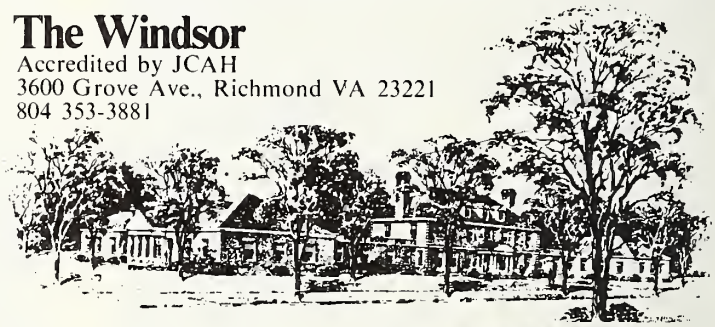

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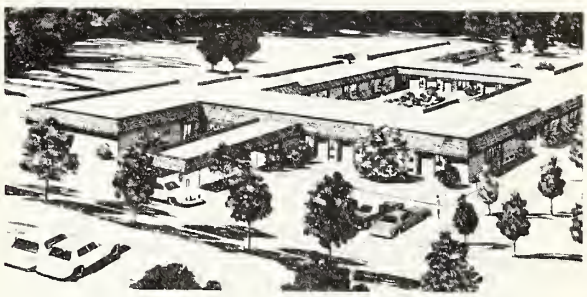

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# Zollinger-Ellison Syndrome Presenting with Osteomalacia

James H. Lewis, MD, *Washington, DC,* and
Stephen Clement, MD, *Richmond, Virginia*

Osteomalacia has been associated with many gastrointestinal and hepatobiliary disorders in which fat malabsorption occurs. Steatorrhea is associated with malabsorption of vitamin D and calcium, leading to the development of osteomalacia[1,2]. This report describes a patient who presented with steatorrhea and osteomalacia and who was initially thought to have celiac sprue but subsequently was found to have Zollinger-Ellison syndrome (ZES). The patient had a dramatic response to treatment with cimetidine and supplemental vitamin D and calcium.

We have been unable to find a similar report and wish to add Zollinger-Ellison syndrome to the list of causes of steatorrhea which may lead to osteomalacia.

**Case Presentation**

The patient, a 74-year-old retired nurse, was first admitted to the George Washington University Medical Center in October 1978 with the chief complaint of diffuse rib pain of one month's duration. She also reported a gradual 30-pound weight loss in the previous six months associated with anorexia and three watery stools daily. Previously, she had enjoyed good health. There was no history of gastric, liver, or kidney disease. She had had no previous surgery. Family history was unremarkable. She was taking no medicines and did not drink alcohol.

Physical examination revealed a thin woman who weighed 33 kg (30% below her ideal body weight) and who had exquisite chest wall tenderness to palpation. Cardiopulmonary examination was normal. The abdomen was soft and non-tender. The liver had a span of 7 cm in the midclavicular line. The spleen was not palpable. The stool was tan, loose, and Hemoccult® negative. Chvostek and Trousseau signs were absent.

Abnormal laboratory tests were calcium 5.4 mg/dl (normal 9–10.5 mg/dl), alkaline phosphatase 535 u/l (normal < 85 u/l), severe osteopenia on chest x-ray, and increased stool fat on Sudan III stain. The hematocrit, albumin, phosphorus, creatinine, amylase, gamma glutamyl transpeptidase, and parathyroid hormone levels were normal. No pseudofractures were seen on multiple bone films or bone scan. Plain x-ray film of the abdomen showed no pancreatic calcifications.

Osteomalacia was confirmed by an undecalcified iliac crest bone biopsy, which showed the characteristic increased number and width of osteoid seams. While on a daily intake of 100 gm of fat, a 72-hour fecal fat collection quantified her steatorrhea at 44 gm fat excreted/day. Urine collection for D-

From the Department of Medicine, Division of Gastroenterology, George Washington University Medical Center, Washington, DC, where Dr. Lewis and Dr. Clement were residents at the time this article was written. Dr. Lewis is now on the faculty of the Medical Center, and Dr. Clement is in private practice at 1413 Johnston-Willis Drive, Richmond VA 23235, and will receive correspondence at that address.

Submitted 2-5-81.

xylose® and Schilling tests were incomplete. An attempt at per oral small bowel biopsy was unsuccessful. A presumptive diagnosis of adult celiac sprue was made and a gluten-free diet with vitamin D and calcium supplementation was started. Her bone pain and diarrhea lessened and her weight increased 6 kg during the two-week hospitalization. At discharge the serum calcium was 8.1 mg/dl and alkaline phosphatase was 321 u/l.

The patient was lost to followup until 14 months later, when she was hospitalized for melena. She had voluntarily discontinued the gluten-free diet shortly after the first hospitalization. She weighed 35 kg. Chvostek and Trousseau signs were now present. Laboratory values were hematocrit 29, calcium 4.8 mg/dl, alkaline phosphatase 96 u/l, and albumin 1.7 g/dl (normal 3.5–5.5 g/dl). Upper GI series was suboptimal because of excessive gastric secretions. Gastroscopy was then performed and revealed a duodenal bulb ulcer. Cimetidine was begun. A mucosal biopsy taken from the second portion of the duodenum during endoscopy showed gastric metaplasia of the intestinal villi. There were no villous changes characteristic of celiac sprue. The fasting serum gastrin was 3060 pg/ml (normal < 150 pg/ml). During gastric secretory analysis, the basal acid output (BAO) was 43 meq/hr and the pentagastrin-stimulated maximal acid output was also 43 meq/hr (BAO:MAO ratio 1). These values were diagnostic of the Zollinger-Ellison syndrome. A normal sella turcica on skull x-ray and a normal parathyroid hormone level made Type I multiple endocrine adenomatosis unlikely.

A search for a resectable gastrinoma was begun. The upper GI series showed a normal appearing duodenal sweep. The pancreas was normal on sonography and CAT scan, but the patient declined to give consent for arteriography or laparotomy.

While taking cimetidine 300 mg qid, vitamin D and calcium, the patient gained weight and had complete resolution of the rib pain, diarrhea and ulcer symptoms. At the time this is written she is without complaints and her weight is 45 kg (100% ideal body weight). Serum calcium, albumin, hematocrit, and stool Sudan III stain are normal. She continues to decline followup diagnostic and gastric secretory studies.

## Discussion

Our patient presented with diarrhea and steatorrhea preceding the more typical ulcer symptoms of Zollinger-Ellison syndrome, which is in keeping with the small percentage (7%) of patients who present with diarrhea alone[3,4].

The incidence of steatorrhea in Zollinger-Ellison syndrome has not been established, although this association was described in 1958[5]. However, the pathogenesis of steatorrhea in ZES has been the subject of several studies, which show that both intraluminal maldigestion and mucosal malabsorption of fat play important roles. The inactivation of pancreatic lipase by acid is considered the predominant cause of intraluminal maldigestion[6–8]. Lesser contributing factors of maldigestion are rapid intestinal transit[8–10] and decreased bile salt concentration available for micelle formation due to precipitation and dilution by excessive acid secretion[8].

The second major mechanism causing steatorrhea in Zollinger-Ellison syndrome is mucosal change induced by acid injury. Gastric metaplasia of surface epithelial cells of the proximal small bowel, villous blunting and inflammation, and epithelial cell injury by electron microscopy have all been correlated with malabsorption of lipid[6–8,11,12].

As in this case report, steatorrhea can lead to osteomalacia. Osteomalacia, defined as defective mineralization of bone matrix, is considered to be a specific disease process secondary to vitamin D deficiency or phosphate depletion[1]. Steatorrhea, from whatever cause, may result in impaired intestinal absorption of vitamin D[1,13].

A negative calcium balance due to malabsorption of dietary calcium or intestinal secretion of calcium may also contribute to osteomalacia but is more commonly associated with osteoporosis[1,14]. Although vitamin D, phosphorus or calcium kinetic studies were not performed, the dramatic clinical improvement in bone pain and cessation of steatorrhea following cimetidine therapy strongly supports our contention that this patient's osteomalacia is a complication of Zollinger-Ellison syndrome.

## Summary

A patient with Zollinger-Ellison syndrome presenting with osteomalacia and steatorrhea is discussed. The diagnosis was not suspected until an ulcer diathesis appeared. Cimetidine resulted in complete control of ulcer symptoms, steatorrhea and bone pain. Zollinger-Ellison syndrome should be added to the list of intestinal disorders which may result in osteomalacia. A fasting serum gastrin is a worthwhile screening test to identify the syndrome in patients presenting with obscure diarrhea, steatorrhea or osteomalacia.

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# ABSTRACTS

*These are abstracts of papers presented at the annual meeting of the Virginia Society of Ophthalmology and Otolaryngology on May 6-9, 1981, at Virginia Beach.*

**Cochlear Implant.** Fred T. Shaia, MD, *Richmond.*

The cochlear implant is a new prosthetic device used primarily for patients with severe bilateral sensori-neural hearing loss who are not benefited by hearing aide amplification. The surgical procedure performed is a mastoidectomy with implantation of electrical wiring to the cochlea, which is connected to an amplifier located externally. This provides a sensation of sound. An evaluation for a cochlear implant requires auditory, vestibular, psychological and radiological evaluation. Approximately 100 patients have been implanted to date, two of them in Virginia. Both of these are using their cochlear implant devices 8-12 hours a day and report markedly improved communication.

**Esophageal Foreign Bodies in a 74-Bed Community Hospital.** Delmar F. Weaver, MD, *Culpeper.*

This paper is based on a review of 35 esophagoscopies performed at Culpeper Memorial Hospital over an eight-year period. A foreign body was seen and removed in 26, allowed to go through in two, and of the remaining seven, several were thought to have passed through before being seen. There were no complications in this series. The paper describes an approach to diagnosis and a plan for removal.

**Mucormycotic Sphenoid Sinusitis.** Donald R. Lewis, MD, David H. Thompson, MD, Theodore W. Fetter, MD, and Michael Duncan, MD, *Portsmouth.*

Rhinocerebral mucormycosis is a rare but aggressive fungal infection usually found in uncontrolled diabetics. Invasion of mucous membranes and blood vessels results in grey-black ischemic gangrene of intranasal structures and destruction of bone and cartilage. Paranasal sinusitis, orbital and periorbital invasion, cranial nerve palsies and meningoencephalitis are common. Review of the literature reveals sphenoid sinus involvement to be an infrequent finding. We report a case of mucormycosis in a diabetic male, confined to the sphenoid sinus without intranasal pathology, associated with confusion and a sixth cranial nerve palsy. Computerized tomography documented initial sphenoid sinus, sphenoid bone involvement and retrobulbar edema, as well as subsequent resolution. Successful treatment included sphenoidotomy for drainage and biopsy, diabetic management, and intravenous and intrasphenoid sinus amphoteracin B.

# For Cluster Headaches: Cryosurgery

William M. Chadduck, MD, and Eugene C. Madonia, MD,
*Martinsville, Virginia*

CLUSTER headaches, or Horton's headaches, as they are sometimes called, are characterized by severe fronto-orbital pain associated with ipsilateral conjunctival injection and nasal congestion, and generally occur in groups or clusters. They are severe and disabling, lasting 15 minutes to an hour, as distinguished from the pain of trigeminal neuralgia, which is probably more severe but of very brief duration. The victim is usually a male and more often than not will have repeated attacks beginning in the evening hours. There is a suggestion of seasonal incidence and remission of such headaches. They are usually thought to be a variation of migraine headaches and may respond to medications often used in the treatment of migraine, chiefly methysergide maleate (Sansert®), although more frequently they are intractable to all forms of medical treatment, including vasoactive preparations, psychotropic drugs, histamine desensitization and oxygen inhalation. Both narcotic addiction and suicide have resulted from this affliction.

We have treated nine patients who suffered from cluster headaches with cryosurgery and have had a good rate of success. Cryosurgery for migraine-type problems is not new. In 1973, Cook[1] recorded results of treatment with cryosurgery of 322 patients who had various forms of migraine.

From Memorial Hospital of Martinsville and Henry County. Address correspondence to Dr. Chadduck at PO Drawer 4666, Martinsville VA 24112.

Submitted 12-3-80.

We have accepted only patients who have classic cluster headaches. All of them have had intractable pain and have undergone extensive diagnostic studies, usually including cerebral angiography to rule out the occasional carotid aneurysm associated with Raeder's syndrome[2] or proximal carotid artery disease.[3] In some cases, relief of symptoms by cocainization of the sphenopalatine ganglion has preceded cryosurgical therapy, but this has not been a good indicator of the procedure's success.

The simplicity of the procedure makes it useful as a symptomatic treatment. We have avoided any open operations, such as those requiring gingival incisions and transantral operative procedures.

**Operative Procedure**

Only mild sedation is used. Local anesthesia to the nasal cavity is accomplished by applying cocaine and epinephrine behind the middle turbinates, bilaterally. The middle turbinate is pushed away from the septum to expose some of the face of the sphenoid sinus. A 4.0-mm cryosurgical probe is then placed above the back of the middle turbinate to touch the face of the sphenoid and the tip of the probe lowered −160 to −180 degrees centigrade. When this area is reached, the cold may reproduce the patient's symptoms. A transethmoid tunnel is then made by pushing the bayonet forceps through the ethmoid floor just lateral to the middle turbinate. A small tract is made somewhat superiorly towards the sphenopalatine artery and ganglion. If the proper position is found, the patient's intense pain is reproduced when

the probe is cooled to −160 degrees C. In addition, conjunctival injection and lacrimation will be noted. This is the most important lesion to make as it is in contact with the sphenopalatine artery and ganglion. The probe is rewarmed after each lesion is made and then repositioned if necessary.

The second part of the procedure is done by anesthetizing with xylocaine a small area just above the xygomatic process of the temporal bone and anterior to the ear. The temporal artery pulse can usually be palpated in this area. A tiny incision is then made and a small cryosurgical probe is placed on the main trunk of the superficial temporal artery, where again lesions are made at −160 to −180 degrees centigrade, using a 2.2-mm probe. The anterior branch of the superficial temporal artery is identified and a tunnel made subcutaneously to allow placement of the probe somewhat more anteriorly, where a second lesion is made. The tiny incision is closed with one or two small Dexon® subcuticular sutures and a Band-Aid® dressing applied. The patient then returns directly to the ward. Following the surgery, either immediately or the same evening, the patient generally experiences the typical cluster pain, but it resolves the following day.

There have been no significant complications, with the possible exception of some transient sinusitis in one patient, requiring antibiotic therapy. Extraocular motion and visual field testing is done during the application of the extreme cold temperatures, and no patient has developed abnormalities of ocular motor function or vision. One patient had relative meiosis on the side ipsilateral to his procedure. When the area lateral to the middle turbinate is invaded by the bayonet forceps there is some cracking of thin bone or air cells, producing some pain, even with local anesthesia to the area. Except for this brief period of discomfort, the patients complain very little of the operative procedure.

**Case Reports**

*Case 1.* C.H., a 57-year-old man, was seen for severe headaches occurring about an hour after he retired at night. Severe left frontotemporal pain was associated with tearing of the left eye and a feeling of pounding of the blood vessels on that side of his head and face. He had visited many headache and pain clinics in the United States and had had complete neurodiagnostic studies, including cerebral angiography, myelography and electroencephalography. He had taken such amounts of Sansert that he developed periarterial fibrosis, constricting the right femoral artery to such a degree that he required reconstructive vascular surgery. He had tried histamine desensitization, steroid treatment, propranolol hydrochloride (Inderal®), lithium and oxygen inhalation. He carried with him an oxygen tank on his travels and was quite dependent on medication for pain. The patient was referred to Dr. Norman Cook of Victoria, British Columbia, for cryosurgical treatment in October 1975. He had complete relief of his headaches following this procedure but was seen again in February 1978 for a recurrence of his symptoms. We repeated the cryosurgical procedure after medication offered him only transient relief.

Initially, only the sphenopalatine ganglion was frozen, but then the superficial temporal sympathetic system was also done. The patient again became symptom-free for over two years. He was quite willing to undergo the second cryosurgical treatment, and even stated his willingness to have a third procedure should he develop another recurrence.

*Case 2.* L.H., a 48-year-old man, was referred for treatment of cluster headaches of 15 years' duration. At one time he had fronto-orbital pain on the right side, but in recent years all of his pain was on the left side in the orbital region and was associated with tearing of the eye, conjunctival injection and nasal stuffiness, all ipsilateral to the side of the severe pain. For three years most of the pain had been at night, with episodes lasting 30 to 45 minutes awakening him virtually every night. He had had multiple neurological evaluations and had transient improvements with ergotamine preparations and Sansert.

In February 1979 he underwent cryosurgical ablation of the left sphenopalatine ganglion and superficial temporal periarterial sympathetics. A letter of followup received five months later indicated rare occurrence of left-sided face pain, which was not severe, and expressed gratitude for the days and nights when there was no pain at all.

*Case 3.* J.W., a 49-year-old man, had a five-year history of severe, right-sided, fronto-orbital headaches associated with conjunctival injection, excessive tearing, and nasal stuffiness on the ipsilateral side. He had transient relief with Sansert, had tried Inderal and other medications, and had had thorough neurologic evaluations, including cerebral angiography, which was normal.

Following the cryosurgical procedure, he had relief of his cluster headaches on the right side but had a recurrence of left-sided cluster headaches, and two years later returned because of a recurrence of his cluster headaches on the right side as well. After a second operative procedure on the right side, with cryosurgical ablation of the sphenopalatine ganglion and the superficial temporal periarterial sympathetics, he had no recurrence on either side for six

months. The patient stated that if he had a recurrence of pain, he would gladly return for a fourth procedure.

The remaining six patients, all males between the ages of 33 and 54 years, had clinically typical and intractable cluster headaches. Cryosurgery has given them good relief of pain over periods of six months to three years.

## Summary

We have presented three patients, all males, who had classical findings of cluster headaches unresponsive to many trials of the usual medical treatments. All of these patients were treated by one or more cryosurgical operative procedures and obtained long-standing periods of relief of pain. The procedure involves cryosurgical ablation of the sphenopalatine ganglion and the periarterial sympathetics of the superficial temporal artery, ipsilateral to the side of the patient's symptoms.

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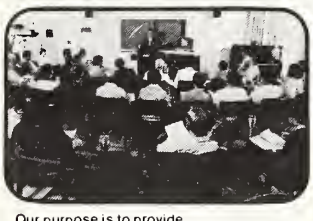

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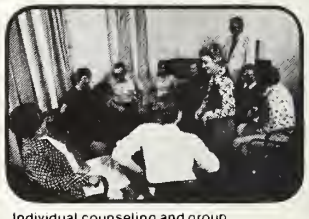

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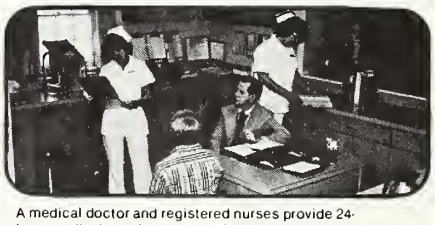

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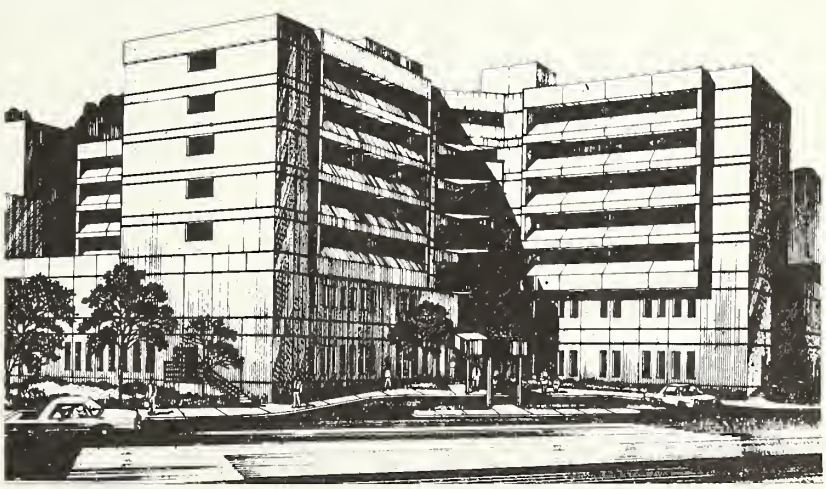

# The Physician "Surplus": How did it happen? What to do about It?

Edwin F. Rosinski, EdD, *San Francisco, California*

THE Report of the Graduate Medical Education National Advisory Committee (GMENAC)[1] of the Department of Health and Human Services, deals with multiple aspects of the supply and distribution of physicians in this country. The data are fascinating and informative but, to anyone following the past trends in health manpower, not too startling. This article deals with perhaps the two most important conclusions of that report, namely, that by the late 1980s there will be a "surplus" of physicians and that "maldistribution" will continue.

In 1963, Congress passed and the President signed Public Law 88-129, the Health Professions Educational Assistance Act, which was the first legislation to support medical education. This law was enacted because a number of health manpower reports had stressed the serious need for more physicians, and it was decided at the federal level that this could be best accomplished by expanding the enrollment of existing medical schools and developing new ones. The law specifically provided for construction funds for expansion of enrollment. Complementary legislation provided for aid to medical students.

This landmark legislation was followed two years later by Public Law 89-290, the Health Professions Educational Assistance Act Amendments, which significantly enhanced the original act. In addition to continuing the construction funds, two new types of grants were developed: basic improvement grants were authorized by Congress to pay medical schools a lump sum of $12,500 plus $250 per each student enrolled on the condition that enrollments increased by 2½% or five students; special improvement grants could be used only to assure maintenance of accreditation and for the school's specialized functions.

In 1968 the role of the Federal government in the support of medical education took a dramatic step with Public Law 90-490, the Health Manpower Act. A new form of grants was developed in Public Law 90-490, the Health Manpower Act, called institutional grants. These provided that each medical school receive a base grant of $25,000, with 75% of the remaining funds allocated by total enrollment plus increased enrollment. An additional part of the institutional grant program generated some initial concern, and that was that 25% of the remaining funds be distributed on the basis of the number of graduates. Critics of this portion of the legislation claimed that medical schools would retain less than desirable students in order to get the money.

Another innovative section of the 1968 Act were special grants, which helped medical schools to plan, develop, and establish new educational programs or to modify existing ones. Curricula were modified, new types of health personnel, such as physician assistants were trained, and medical educators made use of community resources.

Public Law 91-519, passed in 1970 and called the Health Manpower Act of 1970, was essentially a continuation of the Act passed in 1968, although it did provide extra funds for medical schools in financial distress.

The author is director of the Office of Medical Education, School of Medicine, University of California at San Francisco, San Francisco CA 94143.

Public Law 91-157, the Comprehensive Health Manpower Training Act passed in 1971, varied little from the 1968 Act. Construction grants continued and the former institutional grants were renamed capitation grants. The authorization for these grants was $2,500 for each student enrolled, $1,000 per each additionally enrolled student, $4,000 per each graduating student, and, in an attempt to speed up the time it takes to graduate, $6,000 for each student graduating in three years or less. Special project grants also continued, with greater diversity in the types of projects encouraged.

With the enactment of the 1971 legislation, federal authorizations to the health professions grew from $30.1 million in 1964 to $1.1 billion!

WITHIN a few years, however, the picture began to change. During congressional hearings on health manpower in 1974, Dr. Charles C. Edwards, Assistant Secretary for Health, Education, and Welfare, estimated that by 1980 the nation's supply of physicians would likely be sufficient to meet projected requirements. Furthermore, Dr. Edwards questioned the assumption that increasing the supply of physicians would remedy the specialty and geographic maldistribution. Others began to voice similar concerns.

Consequently, the tone of congressional hearings in 1976 on Public Law 94-484, the Health Professions Educational Assistance Act, was that future legislation should redirect the goals of medical schools from educating more physicians to correcting the maldistribution problem. The deliberations on Public Law 94-484 are extensively documented.[2]

In summary, the 1976 Act continued capitation grants, but with conditions such as the one that required medical schools to train a specified number of residents in primary care in order to be eligible for the grants. The special projects grants section remained, with still further shifts in emphasis, such as developing curricula or electives in primary care, special programs for the economically disadvantaged, and the like. The construction grants were changed, with the priority given to modifying clinical facilities for teaching primary care. The Student Aid Program emphasized loans.

Other factors were in force during those same years that had a profound influence on the supply of physicians in this country. In 1972 the Veterans Administration obtained legislation enabling it to get into the business of building medical schools affiliated with some of its hospitals. Public Law 92-541, the Veterans Administration Medical School Assistance and Health Manpower Training Act, authorized the creation of eight of these new medical schools.

Some states also encouraged increasing enrollments by making funds for medical education conditional on increased enrollment. Other states conditioned their funding by requiring medical schools to develop options or electives in primary care, while still others required the development of special programs to accept United States citizens educated in foreign medical schools.

The Carnegie Commission on Higher Education, in its Report on Higher Education and the Nation's Health[3], proposed the development of area health education centers (AHEC) as a means of developing health manpower in geographic areas without a university medical center. Legislation to support these centers was developed and the Comprehensive Health Manpower Training Act, Public Law 92-157, previously described, made them a reality. In 1980 there were 21 throughout the country.

The private philanthropic foundations also entered the picture during those years, notably the Robert Wood Johnson Foundation of New Jersey. In the early 1970s this Foundation embarked on a program of supporting residency programs in primary care as well as supporting medical schools in the development of curricula in primary care. These efforts were copied with the enactment of Public Law 94-484, in 1976, which authorized federal support for residencies in primary care.

But perhaps the one factor over which initially there was little control and the one which had a tremendous impact on our supply of physicians was the influx of foreign medical school graduates into this country. With immigration laws making it easy, they staffed community and public hospitals and eventually entered private practice. In the decade 1965–1974, 75,000 foreign physicians entered the United States.[4] The influx continued until the Immigration and Nationality Act was amended by placing requirements on immigration. The same requirements were incorporated into the Health Professions Educational Assistance Act of 1976, and the tide of foreign medical graduates began to ebb, but not until they comprised a significant portion of the United States physician population.

Concurrent with this influx was the large number of United States citizens studying medicine in schools abroad. Although it is impossible to obtain an accurate figure, the GMENAC report estimates that 13,000 United States citizens are enrolled in foreign medical schools, with as many as 3,100 returning each year.

What is the end result of all of this? In a 20-year span, the number of medical schools increased by 38,

the number of graduates increased by 7,265, and the total number of physicians increased by 179,000, with the number of graduates and the number of active physicians projected to increase further. Yet with this larger number of physicians, specialty and geographic maldistribution is still a concern.

PERHAPS it is time to stop and ask some critical questions before charging off in several directions to deal with the issues. First of all, is there an issue? Who or what determines if there is a surplus of physicians? A surplus in relation to what? What is a desirable number of physicians? Is the ratio determined by population?

What appears obvious is that the federal government has probably done as much as it should to increase the supply of United States medical school graduates. It should continue to stem the flow of foreign medical graduates, since the lesser developed nations need them more than we do. It should stop encouraging United States foreign medical graduates to return to this country for their post-doctoral training, since our facilities have reached a steady state in growth and are needed to absorb our own graduates. The federal government should continue to encourage local communities to assume responsibilities for many federally supported programs, and it should provide some stable support for medical education. Most of all, however, alarms of shortages and surpluses should not be sounded until the terms have been defined and agreed upon.

As to the issue of specialty and geographic maldistribution, again, some critical questions should be asked. What are the dimensions of an appropriate distribution? How many in each specialty do we need? Should the specialty itself determine that? How do we know when we have too many in a specialty? Should all the specialities be represented in a defined geographic area? Are the criteria to define areas of shortage valid?

While the federal government and others have attempted to solve the issue of maldistribution, it appears their efforts have had little effect. True, more individuals are entering primary care, but it can be hypothesized that more medical students are now psychosocially oriented and are opting for medical careers in the primary care disciplines. It appears impossible to initiate any meaningful program—short of autocratic rule—that will bring about a significant shift in what specialties are selected and where physicians practice.

That may seem a pessimistic statement, but a recent national study led to some interesting results.[5] When residents were asked why they picked a particular residency, some selected because of their own abilities and interests, others chose because of professional and personal satisfaction or because it would give the best opportunity to earn a living, some had ideal role models and mirrored them, others were dedicated to particular social/medical issues and selected a specialty that would best address those issues. How can you possibly put all these motivating factors into a single equation?

On the question of why residents selected a particular geographic area, this same study revealed an even greater range of motivating factors. Some selected a location with a population base offering a good income. Spouses did the selecting, on the basis of social and recreational opportunities. Climate influenced some, the social attitudes of a community and colleagues encouraged others. Place of birth and marital status had a decided impact on some, while professional reasons, such as availability of hospitals, influenced others. Then, too, there were personal issues, as well as intangible rewards. Considering the variety of reasons for selecting a location in which to practice, it is difficult to understand why a search continues for a solution to what appears to be an unresolvable problem.

Perhaps the Reagan's Administration failure to respond to the GMENAC report is the best course of action. Data on health manpower already abound, and more studies appear unnecessary. Before any action is taken, two fundamental questions should be asked: What constitutes a surplus? Can the issue of geographic and specialty distribution be solved? If these questions are answered, then perhaps a more rational health manpower strategy can emerge.

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VIRGINIA MEDICAL

EDITORIAL

# Doctors: From Too Few to "Unwanted Excess"?

THE "Physician Glut"—is it really upon us? That word "glut" sounds like an unpleasant, four-letter, Anglo-Saxon term. However, the dictionary tells us it comes to us from middle English through old French. As used here, it means an unwanted excess. Our word "gluttony" comes from the same root.

As is usually the case when dealing with the future, the severity and extent of the problem seems to hinge upon the viewpoint of the prognosticator, but even the most sanguine tend to be worried when they study the statistics, which indicate that we will have 525,000 physicians by 1990, an estimated surplus of 60,000.

Statistics can be misleading, however. I remember all too well the accusations by the media in the 1940s and 1950s that the medical profession was callously limiting the number of people going into medicine. The federal government's subsequent pressures on the medical profession and, more specifically, on medical schools to increase the supply of physicians was successful. It was interesting to see medical schools, whose officials said that their facilities were already strained and that there was no way in which they could increase the size of their classes, immediately do so when the carrot of extra money per student per percentage increase was made available. As the supply of government monies diminishes, some of the schools are regretting their decision to increase their class size. Unfortunately, because of inflation and increased fixed costs reduction in class size will not be of much help to their economic problems.

In the days when many writers were castigating the American Medical Association for limiting the supply of physicians, I frequently pointed out that the AMA had very little influence on the supply of physicians. Most of the medical schools in the United States were and are controlled by the state legislatures; the amount of money alloted to the medical schools by the state legislature was and is the controlling influence on the number of physicians produced.

Civic and professional pride have joined to create forty new medical schools in the past 22 years. This, coupled with the increased size of classes in the existing schools and the increased number of foreign

**For a related article, see page 629.**

medical graduates entering practice in this country, has produced a doubling of our physician population in the past decade. Some recent studies indicate that in this same decade there has been a 13% decline in patient visits to physicians' offices per week. There are, however, many factors that seem to offset this decreased patient/physician ratio.

A tremendous factor is paperwork and committee meetings. It has only been in recent years that I have been intimately acquainted with the amount of extra paperwork and committee time required in the care of hospital patients. I sometimes wonder, at the rate of increase of what is so often make-work, if we will not need double our present physician population just to attend all the committee meanings and keep up with the requirements of the record room.

In a more serious vein, the geometric increase in technology and the physician time and effort required for the use and control of this technology has and will absorb a large proportion of the increased physician population. Fortunately for those physicians involved in this, the economic rewards for use of technology have been adequate, and this has favored the growth and use of these life-saving technologies.

The percentage of the aged in our population is increasing. The aged require much more medical care than the young and middle-aged. Not only do the aged have more medical problems, but they require more time and deserve more attention than they have been receiving.

In working and talking with the younger physicians, I have a definite feeling that they do not feel that the physician should have to work 60 and 70 hours a week as many of us older physicians have done; that their families deserve to see them more; and that they should have more time for recreation and relaxation than has been customary for the physician in the past.

Women are becomming more and more of a factor in the medical world. The number of female physicians in the medical world is expected to reach 100,000 by 1990, double the current figures. It is always possible that the trend may change, but the trend in the past 20 years has been for women physicians to work shorter hours and fewer years than the male physician.

A substantial number of practicing physicians in the United States at this time are of foreign origin, and many received their training in other countries. Certainly in the last few years the brakes have been put on the entrance of foreign physicians.

It is interesting that a recent item in *American Medical News* suggests that in some of the Third World nations, the situation is getting worse instead of better. In Uganda, for instance, each physician serves 28,000 people, compared to 7,800 people ten years ago. In Zimbawi the figure is one physician for 7,000 residents, up from 5,200 ten years ago. In Kenya, the ratio is one physician for 11,400 residents, compared to 10,200 a decade ago. The figure at the present time in the United States is about one physician for every 625 people. The significnace of this figure is unclear since many of the physicians are in training, administration, semi-retired or otherwise engaged.

The maldistribution problem certainly will abate as the physician population grows in relation to the general population but probably will always be with us to some extent.

A factor on the negative side of the equation—that is, from the physicians' point of view—is the increasing number of physician extenders, nurse practioners and physicians' assistants. Osteopathic physicians have not been singled out here because they are included in the statistics with MDs.

It seems to me that the medical community can and should try to modify the adverse effects of the alleged physician excess by working with the members of the legislature and boards controlling the medical schools of our country to reduce class size, to discourage development of new schools, to control, except for training, immigration of foreign medical graduates, and to work with groups such as the Virginia Council on Health and Medical Care to improve the distribution of physicians.

RAYMOND S. BROWN, MD

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**The Council is supported in part by The Medical Society of Virginia.**

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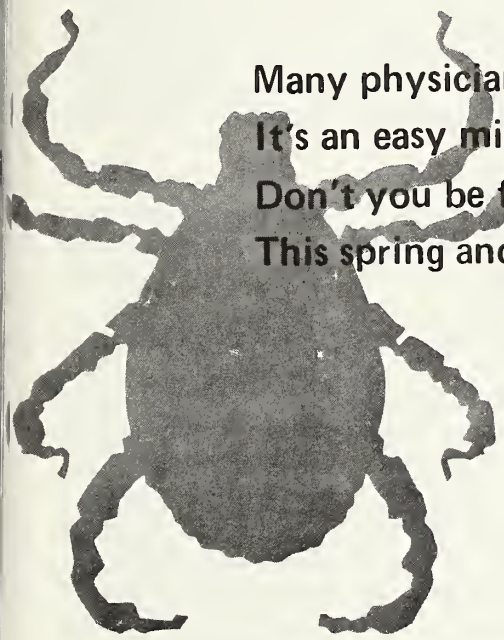

Many physicians miss the diagnosis of Rocky Mountain Spotted Fever
It's an easy mistake to make.
Don't you be fooled by flu-like symptoms.
This spring and summer. . .

# THINK RMSF

## REMEMBER, the first symptoms are:

**SEVERE HEADACHE**
**FEVER**
**MYALGIA**

When the rash appears, it's getting late-

s message a service of the Virginia Chapter, National Foundation for Infectious Diseases, and The Medical Society of Virginia.

# VIRGINIA MEDICAL OBITUARY

## Richard Odell Smith, MD

Dr. Richard Odell Smith, Pulaski, died April 2 at the age of 84. His specialty was ophthalmology and otolaryngology.

Dr. Smith was graduated from the Washington University School of Medicine in 1933, then trained at St. Louis City Hospital and at Barnes Hospital, also in St. Louis. A member of the Southwestern Virginia Medical Society, Dr. Smith also belonged to the American Academy of Ophthalmology and Otolaryngology and the American Association of Ophthalmology.

## Herbert M. Levitt, MD

Dr. Herbert M. Levitt, Petersburg surgeon, died May 30 in a Petersburg hospital at the age of 59.

A graduate of the University of Virginia and, in 1945, its School of Medicine, Dr. Levitt trained at Beth Israel Medical Center and Hackensack Hospital, both in New Jersey, and at the Indiana Veterans Administration Hospital. Dr. Levitt came to membership in The Medical Society of Virginia through the Southside Virginia Medical Society. He also belonged to the American Society of Abdominal Surgeons, American Surgical Society and Southern Medical Association.

## Memoir of Samuel R. Newman 1890–1980

*By Snowden C. Hall, Jr., MD, Will Sager, MD, and Jefferson D. Beale, Jr., MD*

On December 10, 1980, when Dr. Samuel Raphael Newman died, Danville and Southside Virginia lost its first pediatrician and one of its most revered physicians.

Dr. Newman was born in Warsaw, Poland, on June 23, 1890. At 19 he landed on American soil. He attended the University of North Carolina from 1912-1915. While at the university he won a gold medal for outstanding literary excellence and also founded the Hebrew Cultural Society "for the promotion of Hebrew culture and ideals." These talents for literature and promotion of Hebrew culture were to be continued throughout his long life.

Dr. Newman graduated from the University of Virginia Medical School in 1917. He interned at hospitals in Baltimore and New York City. From 1919–1920 Dr. Newman was employed by the City of Danville as assistant health officer and bacteriologist. In 1921 he was a member of the Medical Commission of the American Joint Distribution Committee for the distribution of food to the European countries that had been ravaged by World War I. He remained in Europe for almost two years. During that time he attended clinics and courses at the renowned hospitals in Warsaw, Vienna, Berlin and Paris, becoming a hospitant at the Children's Clinic of the University of Vienna.

In July, 1923 Dr. Newman located in Danville for the practice of pediatrics. For the next decade he was not only the only pediatrician in Danville but also in the surrounding towns of South Boston, Chatham and Martinsville.

Dr. Newman's honors are too numerous to catalogue here. Many of these are recorded in *Who's Who in American Jewry* and in the 39th edition of *Who's Who in America.* He became a licentiate of the American Board of Pediatrics in 1934.

In 1954 the Danville Junior Wednesday Club Children's Clinic was renamed the Samuel Newman Children's Clinic and the Charity League of Martinsville honored him by establishing the Samuel Newman Hospital Fund. The National Council of Negro Women (Danville Section) gave him a certificate of award at their Brotherhood Festival, and the National Council of Catholic Men issued him a certificate of recognition. In 1971 Kiwanis International voted unanimously to declare Dr. Samuel Newman an official honorary member of the Kiwanis Club of Danville for his lifetime, an action taken only once before in the 50-year history of the club. In 1974 Dr. Newman was given the Danville Kiwanis Citizenship Award. In 1980 he was named the recipient of the University of Virginia Medical Alumni Association's Thomas Jefferson Award. His remarks in accepting this prestigious award were not only a tribute to Thomas Jefferson and the University of Virginia but to Dr. Newman's clarity of mind and breadth of culture.

Dr. Newman was known for his liberal views and human spirit. He never sought popularity and frequently expressed his opinions in the daily press, these opinions at times not the most popular.

Dr. Newman is survived by his widow, Ida Greenberg Newman, whom he married on December 25, 1917, and by two daughters, Mrs. Naomi Macht and Mrs. Ruth Seigel.

Prepared and published at the request of the Danville-Pittsylvania Academy of Medicine.

## Frederick H. Savage, MD

Dr. Frederick Henry Savage, family practitioner in the Richmond area for more than 24 years, died of cancer on June 18 at the age of 53.

A graduate of the Medical College of Virginia, Dr. Savage had been president of the Virginia Academy of Family Practice and chief of family practice at Henrico Doctors Hospital, Richmond. He came to membership in The Medical Society of Virginia through the Richmond Academy of Medicine.

# Memoir of G. S. Fultz, Jr. 1913-1981

*By Weir M. Tucker, MD, and James Asa Shield, Jr., MD*

George Simeon Fultz, Jr., MD, was born in 1913 and died March 30, 1981 at the age of 67. It has been said that life is a series of circles, never ending circles in succession, beginning with birth and ending in death, saying hello and goodbye and trying to do a job well done.

George was born in Butterworth in Dinwiddie, Virginia, where his father was a physician in a country practice in Dinwiddie County. He told George, who was going to medical school, to be a specialist, that this was the practice of the future. His father was a good friend of Dr. Howard Masters, Dr. Beverley R. Tucker and Dr. James Asa Shield, Sr., all of Tucker Hospital. These friendships were to determine George's medical future.

George S. Fultz graduated from Virginia Military Institute in 1934 and from the Medical College of Virginia in 1938. He had a rotating internship at the Johnston Willis Hospital and then a psychiatric residency at Tucker Hospital. He was a fellow in Neurology at George Washington University Hospital, Washington, DC, under Dr. Walter Freeman, the father of the icepick lobotomy operation. Dr. Frank S. Johns, Dr. Donald Daniel and Dr. Walter Freeman were all good friends of the elder Drs. Tucker, Masters and Shield. George Fultz served his country overseas in World War II as chief of neuropsychiatry at the 220th Station Hospital in the Pacific Theater of War. He was discharged from the army as a major. George completed his residency in psychiatry under Dr. Finley Gayle at the Medical College of Virginia.

George Fultz joined the staff of Tucker Hospital in the private practice of psychiatry and then Tucker Pavilion, Chippenham Hospital and the Tucker Psychiatric Clinic, Inc., in November, 1976, until his retirement in November of 1980.

George Fultz served on the clinical faculty of the Medical College of Virginia, the Board of Directors of the Memorial Guidance Clinic, chaired the section of Neurology and Psychiatry of the Southern Medical Association. He was on the Executive Committee of the Mental Hygiene Society of Virginia and the Governors Advisory Board on Mental Health. He took an active part in the Southern Psychiatric Association and the Neuropsychiatric Society of Virginia.

Dr. Howard Masters once said that George never read a book and never missed a medical meeting. He was also in regular attendance at the Chippenham and Johnston Willis monthly meetings, the Tri-State Medical Association, the Medical College of Virginia Medical Alumni Association, the Manchester Medical Society, the Richmond Academy of Medicine and The Medical Society of Virginia. He was a member of the American Psychiatric Association.

George was an obsessive compulsive worker. His micrographic handwriting depicted this trait, as did his dictated histories, detailed, often with minutia, and rambling. He made many friends and was attentive to all of them. He was thoughtful and brought doughnuts to the nurses on Sunday mornings. He rarely missed church and was a deacon of the First Presbyterian Church in Richmond.

His social enjoyment was drinking and being with his friends. His recreation was his boat and fishing for blues with his children. His hobby was farming, called gardening since it was done in his backyard. He had a green thumb all his life and was without a doubt the best farmer in the City of Richmond where he turned his backyard into a productive farm. It was in truth a beautiful weedless garden of magnificent design. The secret, he said, was planting at the right time, fertilizing with lime, and plenty of water.

Dr. Fultz is survived by his wife, Mrs. Lora Helton Fultz, three daughters, their families, and a host of friends.

Prepared and published at the request of the Richmond Academy of Medicine.

# WHO'S WHO

**Dr. William S. Hotchkiss,** *Norfolk,* has been elected to his second term on the board of trustees of the American Medical Association. Dr. Hotchkiss is a Past President of The Medical Society of Virginia.

Winner for 1981 of the Welburn Award conferred annually by the Arlington County Medical Society was Nancy Schmidt Weyl, artist, horsewoman, volunteer, and wife of one of The Medical Society of Virginia's Past Presidents, **Dr. W. Leonard Weyl** of *Arlington.* For 25 years every issue of the Medical Bulletin of Northern Virginia has carried an editorial cartoon created by Mrs. Weyl; this unflagging generosity was the basis for the award, but from Mrs. Weyl's hands have also flowed innumerable graphics for community events and publications. A graduate of Chicago's Art Institute, Mrs. Weyl's works have been exhibited by Washington galleries, she has illustrated children's books, and she has been a medical illustrator.

It was the second Welburn Award in the Weyl family. Dr. Weyl won it in 1977.

**Dr. John B. Catlett,** *Richmond,* is the new president of the Virginia Society of Internal Medicine. Serving with him as secretary is **Dr. William C. Branscome,** *Staunton.*

**Dr. Richard H. Fisher,** *Salem,* was honored as Good Citizen of the Year by the Salem/Roanoke County Chamber of Commerce. Dr. Fisher was cited for his work as president of the Lewis-Gale Medical Foundation, which has awarded $128,000 in scholarships. He also serves as team doctor for several athletic organizations and is chairman of the Salem School Board.

The Virginia Allergy Society has elected as its new president **Dr. David C. Walton,** *Roanoke,* and as secretary-treasurer, **Dr. Albert L. Huber,** *Charlottesville.*

After nearly 30 years of service to King's Daughters' Hospital, *Staunton,* **Dr. Karl F. Menk** retired this summer, and the board of trustees marked the occasion with a reception and the gift of a silver bowl. A graduate of the University of Virginia School of Medicine, Dr. Menk has been the hospital's chief pathologist, director of laboratories and director of the School of Medical Technology.

In *Fredericksburg,* **Dr. Manuel M. Belandres,** whose offices are in Stafford County, was named Citizen of the Year by the Elks Lodge 875 in recognition of his work with the Elks Boys Camp program and with the children of indigent parents of the county.

These Medical Society of Virginia members have been elected to fellowship in the American Academy of Orthopedic Surgeons: **Dr. Lawrence D. Bourgard** and **Dr. Thomas S. Meade, Jr.,** both of *Norfolk*; **Dr. William C. MacCarty, III,** *South Boston*; and **Dr. John W. Johnson,** *Kilmarnock.*

**Dr. Fang Shuh Horng,** *Luray,* has been named a fellow of the American College of Surgeons.

The American College of Physicians has conferred fellowship on these MSV members: **Dr. Harvey A. Schwartz,** *Alexandria;* **Dr. Richard R. Rosenthal,** *Annandale;* **Dr. Thomas P. Butler,** *Arlington;* **Dr. Kevin R. Cooper,** *Midlothian;* **Dr. Marvin Goldberg, Jr.,** *Norfolk;* **Dr. Bruce N. Steward,** *Roanoke;* and **Dr. Jeffrey P. Harris,** *Winchester.*

**Winners past and present: Nancy Weyl with Dr. Weyl (right). At left, Dr. Charles O. Richerich, president, Arlington County Medical Society.** *Photograph by George Borsfay for the Northern Virginia Sun.*

Newly elected fellows of the American College of Radiology are **Dr. Ira J. Green,** *Falls Church,* and **Dr. Joseph M. Straughan,** *Wise.*

The Virginia Surgical Society has chosen for its president **Dr. Frank S. Blanton, Jr.,** *Bristol, Tennessee.* Serving with him as the new secretary will be **Dr. John Clarke,** *Virginia, Beach.*

**Dr. Robert L. Adeson,** *Alexandria,* is the new president of the Northern Virginia Academy of Surgery.

At the University of Virginia Medical Center in *Charlottesville,* **Dr. Robert D. Hodge, Jr.,** has been appointed to the newly created post of medical director of ambulatory care services. Dr. Hodge previously was medical director of the university's Primary Care Center.

The Waynesboro Exchange Club's Book of Golden Deeds Award went this year to **Dr. Bliss K. Weems.** Dr. Weems has practiced in *Waynesboro* for almost 50 years and was instrumental in developing the community's local hospital facilities.

**Dr. James A. Harmon,** *Newport News,* has been elected to the board of directors of the National Society to Prevent Blindness, Virginia Affiliate.

**Dr. Wyndham B. Blanton, Jr.,** *Richmond,* was given the Edward A. Wayne Medal for Distinguished Service during 1981 commencement exercises of the Medical College of Virginia/Virginia Commonwealth University. Long a member of VCU's Board of Visitors, Dr. Blanton served as the board's rector from 1972 to 1980 and for ten years was associate dean of the School of Medicine in charge of curriculum.

New chief of staff of the Community Hospital at *Radford* is **Dr. Ana Maria Perez,** pathologist and director of the hospital's clinical laboratory.

In *Norfolk,* **Dr. Edward L. Lilly** was elected to the presidency of the medical staff of DePaul Hospital and **Dr. Ira Lederman** was chosen president-elect.

At the Louise Obici Hospital in *Suffolk,* **Dr. George W. Cornell** is the newly elected president of the medical staff.

**Dr. Terry O. Miller,** *Lynchburg,* has been elected president of the Virginia Orthopaedic Society. **Dr. Curtis Spear,** *Norfolk,* continues as secretary.

**Dr. Theodore Marius Pitts** received the appreciation of grateful *South Hill* citizens at a recent banquet marking his departure for graduate studies in orthopedic surgery at Yale University after three years of service to the South Hill community. The banquet was given in Dr. Pitt's honor by Brunswick Health Care of South Hill.

After 27 years of service to the citizens of *South Boston,* **Dr. George Lee Wilkinson** has retired, referring his patients to other local physicians. "I'm going to relax and enjoy," he was quoted as saying by South Boston's Gazette-Virginian, but he added that he plans to keep his license to practice.

# The Medical Society of Virginia

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VIRGINIA MEDICAL

October 1981, Volume 108, Number 10

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**On the cover** **Dr. T. H. Jennings, Bedford, speaks before the House of Delegates at the 1979 Annual Meeting at the Homestead.**

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The Medical Society of Virginia

and

The Medical Society of Virginia Auxiliary

cordially invite you to attend

a Reception honoring

H. C. Alexander, III, MD,

President of the Society 1981–1982,

and Mrs. Alexander,

and

Mrs. John Hannon,

President of the Auxiliary 1981–1982,

and Doctor Hannon,

on the evening of October 24, 1981,

at 6:30 o'clock

on the Promenade, Omni International Hotel,

Norfolk, Virginia

# MEETINGS ABOUT MEDICINE

**October 17**
**3rd Annual Behavioral Medicine Conference:** Primary and Secondary Risk Reduction of Coronary Artery Disease (University of Virginia), *Charlottesville.* 7 hrs. Cat. 1. Fee: $65. Dr. R. Craig Lefebvre, Behavioral Medicine Center, Blue Ridge Hospital, Charlottesville VA 22901, (804) 924-5314.

**October 20, 27, November 1**
**Recent Advances in Drug Therapy** (Medical College of Virginia School of Pharmacy), Thomas Nelson Community College, *Hampton.* Werner Lowenthal, MCV School of Pharmacy, Richmond VA 23298, (804) 786-0334.

**October 22-23**
**Non-Invasive Cardiology** (Pennsylvania State University College of Medicine) *Hershey, Pennsylvania.* M. Reese, Dept. 4004, Milton Hershey Medical Center, Hershey PA 17033.

**October 24-25**
**Coping and Complying with Utilization Review and Quality Assurance** (American College of Utilization Review Physicians), Peachtree Plaza, *Atlanta, Georgia.* 10 credit hrs. Fee, $135 members, $165 non-members. Betty J. Hamman, 1108 N. Second St., Harrisburg PA 17102, (717) 697-4428.

**October 30**
**Update in Practical Clinical Endocrinology** (University of Maryland), *Baltimore.* Betty B. Saar, 10 S. Pine Street, Baltimore MD 21201, (301) 528-3956.

**October 30-31**
**7th Biennial Symposium: Sudden Cardiac Death** (Deborah Heart and Lung Center), the Meadowlands Hilton, *Secaucus, New Jersey.* 10 credit hours. Fee, $150. M.A. Ramsey, Box 369, Wayne PA 19087, (215) 688-6852.

**October 30-31**
**Allergy and Immunology for the Clinician** (American Academy of Allergy), *Hilton Head, South Carolina.* 14 credits. A. J. Kimber, 611 E. Wells Street, Milwaukee WI 53202, (414), 272-6071.

**October 31**
**6th Annual Interdisciplinary Symposium on the Care of the Critically Ill Patient: Life-Threatening Infections** (Fairfax Hospital), Hilton Hotel, *Springfield.* 7 hrs. Pre-registration fee, $60. Ginny Lamm, Critical Care Symposium, Fairfax Hospital, 8001 Braddock Rd., Springfield VA 22151, (703) 321-4255.

**October 31-November 5**
**Annual Meeting, American Academy of Pediatrics,** *New Orleans.* M. H. Jennison, MD, 1801 Hinman Ave., Evanston IL 60204.

**November 1-4**
**Annual Symposium on Computer Applications in Medical Care** (George Washington University), *Washington, DC.* Office of CME, George Washington University, 2300 K Street, NW, Washington DC 20037.

**November 5**
**Annual Fall Program, Virginia and North Carolina Societies of Internal Medicine,** *Williamsburg.* Fee, $75. Virginia Society of Internal Medicine, PO Box 6264, Norfolk VA 23508.

**November 6-7**
**Third Psychosis** (University of Maryland), *Baltimore.* Betty Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**November 7-8**
**Reading Retreat VII: A Dialogue on Recent Advances in Cardiology and Pulmonary Medicine** (Virginia Chapter, American College of Physicians), Peaks of Otter Lodge, *Roanoke.* 15 Cat. 1 credit hrs. Fee: $70. Daniel F. Mohler, MD, Dean's Office, Box 395, McKim Hall, UVa Medical Center, Charlottesville VA 22908.

**November 8-13**
**12th Family Medicine Review** (University of Kentucky), *Lexington, Kentucky.* Frank R. Lemon MD, College of Medicine, Lexington KY 40536-0084 (606) 233-5161.

**November 9-12**
**The Evaluation of Endocrine Disorders in the Pediatrician's Office** (Johns Hopkins University School of Medicine), *Baltimore.* 32 credit hrs. Fee, $350. Program Coordinator, Turner 22, 720 Rutland Ave., Baltimore MD 21205, (301) 955-6046.

**November 9-13**
**Basic Practice: Ultrasound** (Johns Hopkins School of Medicine), *Baltimore.* Fee, $400. Joan Batt, Department

of Radiology, Johns Hopkins Hospital, Baltimore MD 21205, (301) 955-8450.

**November 12-13**
**Second Annual Virginia Emergency Medical Service Symposium** (State EMS Advisory Council/Medical Society of Virginia/American College of Emergency Physicians/others), *Fredericksburg*. Mary Camp, Bureau of EMS, 109 Governor St., Richmond VA 23219, (804) 786-5188.

**November 13-14**
**Workshop on Sexuality and Intimacy** (University of Maryland), *Baltimore*. Betty Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**November 14**
**Second Saturday Symposium—Ophthalmology** (Eastern Virginia Medical School), *Norfolk*. Hour-for-hour credits. Robert L. Cassidy, MD, EVMS, PO Box 1980, Norfolk VA 23501. (804) 446-5268.

**November 15-18**
**75th Annual Scientific Assembly of the Southern Medical Association,** *New Orleans*. Southern Medical Association, PO Box 2446, Birmingham AL 35201, (205) 323-4000.

**November 19-20**
**Critical Issues in Health Law** (American Society of Law and Medicine), *Washington DC*. Fee, $180, members; $200, non-members. A. Edward Doudeara, JD, 520 Commonwealth Ave., Boston MA 02215, (617) 262-4992.

**November 20-21**
**Progress in Pediatrics 1981** (Johns Hopkins School of Medicine). *Baltimore*. 11 credit hrs. Fee $75. Program Coordinator, Turner 19, 720 Rutland Ave., Baltimore MD 21205, (301) 955-3168.

**December 3-4**
**Advances in Obstetrics and Gynecology** (Medical College of Virginia), *Richmond*. 9½ hrs. Cat. 1. Erma Blanchard, (804) 786-0494.

**December 4**
**R. Carl Bunts Memorial Lectureship in Urology** (Medical College of Virginia, *Richmond*. 6 hrs. Cat. 1. Erma Blanchard, (804) 786-0494

**December 4-6**
**Drug Management of Childhood Behavior Disorders** (University of North Carolina), *Chapel Hill, North Carolina*. 16 hrs. Cat. 1. Office of Continuing Education, (919) 962-2118.

**December 4-6**
**Neurologic Problems of Infancy and Childhood** (Eastern Virginia Medical School and University of Virginia School of Medicine), *Williamsburg*. Ann Raynor, EVMS, PO Box 1980, Norfolk VA 23501, (804) 446-5940.

**December 6-9**
**Coronary, Hypertensive, Valvular and Myocardial Heart Diseases: The Multidisciplinary Approach** (American College of Cardiology), *Williamsburg*. Mary Anne McInerny, 9111 Old Georgetown Rd., Bethesda MD 20014, (301) 897-5400.

**December 11-12**
**Symposium in Ob-Gyn-Perinatology, Endocrinology and Oncology** (University of Maryland), *Baltimore*. Betty Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**December 12**
**Second Saturday Symposium: Obstetrics and Gynecology** (Eastern Virginia Medical School), *Norfolk*. Robert L. Cassidy, MD, EVMS, PO Box 1980, Norfolk VA 23501, (804) 446-5268.

**December 14-18**
**Advanced Practicum: Ultrasound** (Johns Hopkins School of Medicine), *Baltimore*. Fee, $400. Joan Batt, Dept. of Radiology, Johns Hopkins Hospital, Baltimore MD 21205, (301) 955-8450.

**November 15-18**
**74th Annual Assembly** (Southern Medical Association), *New Orleans*. AMA Dept. of Meeting Services, 535 N. Dearborn St., Chicago IL 60610, (312) 751-6503.

**December 18-19**
**The Primary Care Physician and Peripheral Vascular Disease** (University of Kentucky), *Lexington, Kentucky*. Frank R. Lemon, MD, College of Medicine, Lexington KY 40536-0084, (606) 233-5161.

**A CURE FOR CONFLICTS**

To prevent the conflicts in meetings dates that occur now and then, the Medical Society of Virginia Continuing Education Office is a referral point for those who are scheduling meetings.

Toward this worthy goal, would you please notify the CME office by phone or letter as soon as your meeting date is settled. Do not wait for formulation of program plans and such; this register will refer only to the *dates* of meetings.

The address of the CME office is 4205 Dover Road, Richmond VA 23221. The phone number: (804) 353-2721. Dr. Kinloch Nelson is CME director for The Medical Society of Virginia, but the register is kept by Mrs. Evelyn Stockmar; ask for her when you call.

**...takes dietary restriction, regular exercise, behavior modification, and sometimes the addition of an effective anorectic.**

# prescribe

# Tenuate* Dospan* ℞

## (diethylpropion hydrochloride USP)

**75 mg controlled-release tablets**

## the #1 prescribed anorectic

## An effective short-term adjunct in an indicated weight loss program

Overweight patients in certain diagnostic categories often require strict obesity control. Diethylpropion hydrochloride has been reported useful in obese patients with certain complications. While it is not suggested that Tenuate in any way reduces these complications in the overweight, it may have a useful place as a short-term adjunct in a prescribed dietary regimen. Tenuate should not be administered to patients with severe hypertension; see additional Precautions and Adverse Reactions on this page.

## In uncomplicated obesity

Many patients, on the other hand, present with excess fat but no disease. While this condition is often termed uncomplicated obesity, complications of both a social and a psychologic nature may be distressingly real for the patients. In these cases, a short-term regimen of Tenuate can help reinforce your dietary counsel during the important early weeks of an indicated weight loss program.

## Clinical effectiveness

The anorectic effectiveness of diethylpropion hydrochloride is well documented. No less than 18 separate double-blind, placebo-controlled studies attest to its usefulness in daily practice.[1] And the unique chemistry of Tenuate provides "...anorectic potency with minimal overt central nervous system or cardiovascular stimulation." [2] Compared with the amphetamines, diethylpropion has minimal potential for abuse.

**Tenuate–it makes sense. And it's responsible medicine.**

# Merrell Dow

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**References:** 1. Citations available on request from Merrell Dow Pharmaceuticals Inc., Cincinnati, Ohio 45215. 2. Hoekenga M T et al: A comprehensive review of diethylpropion hydrochloride. In Central Mechanisms of Anorectic Drugs, S Garattini and R Samanin, Ed, New York. Raven Press, 1978, pp. 391-404.

## Tenuate® ℞
**(diethylpropion hydrochloride USP)**

## Tenuate Dospan® ℞
**(diethylpropion hydrochloride USP) controlled-release**

AVAILABLE ONLY ON PRESCRIPTION

Brief Summary

**INDICATION:** Tenuate and Tenuate Dospan are indicated in the management of exogenous obesity as a short-term adjunct (a few weeks) in a regimen of weight reduction based on caloric restriction. The limited usefulness of agents of this class should be measured against possible risk factors inherent in their use such as those described below.

**CONTRAINDICATIONS:** Advanced arteriosclerosis, hyperthyroidism, known hypersensitivity, or idiosyncrasy to the sympathomimetic amines, glaucoma. Agitated states. Patients with a history of drug abuse. During or within 14 days following the administration of monoamine oxidase inhibitors, (hypertensive crises may result).

**WARNINGS:** If tolerance develops, the recommended dose should not be exceeded in an attempt to increase the effect; rather, the drug should be discontinued. Tenuate may impair the ability of the patient to engage in potentially hazardous activities such as operating machinery or driving a motor vehicle; the patient should therefore be cautioned accordingly. When central nervous system active agents are used, consideration must always be given to the possibility of adverse interactions with alcohol. *Drug Dependence:* Tenuate has some chemical and pharmacologic similarities to the amphetamines and other related stimulant drugs that have been extensively abused. There have been reports of subjects becoming psychologically dependent on diethylpropion. The possibility of abuse should be kept in mind when evaluating the desirability of including a drug as part of a weight reduction program. Abuse of amphetamines and related drugs may be associated with varying degrees of psychologic dependence and social dysfunction which, in the case of certain drugs, may be severe. There are reports of patients who have increased the dosage to many times that recommended. Abrupt cessation following prolonged high dosage administration results in extreme fatigue and mental depression; changes are also noted on the sleep EEG. Manifestations of chronic intoxication with anorectic drugs include severe dermatoses, marked insomnia, irritability, hyperactivity, and personality changes. The most severe manifestation of chronic intoxications is psychosis, often clinically indistinguishable from schizophrenia. *Use in Pregnancy:* Although rat and human reproductive studies have not indicated adverse effects, the use of Tenuate by women who are pregnant or may become pregnant requires that the potential benefits be weighed against the potential risks. *Use in Children:* Tenuate is not recommended for use in children under 12 years of age.

**PRECAUTIONS:** Caution is to be exercised in prescribing Tenuate for patients with hypertension or with symptomatic cardiovascular disease, including arrhythmias. Tenuate should not be administered to patients with severe hypertension. Insulin requirements in diabetes mellitus may be altered in association with the use of Tenuate and the concomitant dietary regimen. Tenuate may decrease the hypotensive effect of guanethidine. The least amount feasible should be prescribed or dispensed at one time in order to minimize the possibility of overdosage. Reports suggest that Tenuate may increase convulsions in some epileptics. Therefore, epileptics receiving Tenuate should be carefully monitored. Titration of dose or discontinuance of Tenuate may be necessary.

**ADVERSE REACTIONS:** *Cardiovascular:* Palpitation, tachycardia, elevation of blood pressure, precordial pain, arrhythmia. One published report described T-wave changes in the ECG of a healthy young male after ingestion of diethylpropion hydrochloride. *Central Nervous System:* Overstimulation, nervousness, restlessness, dizziness, jitteriness, insomnia, anxiety, euphoria, depression, dysphoria, tremor, dyskinesia, mydriasis, drowsiness, malaise, headache; rarely psychotic episodes at recommended doses. In a few epileptics an increase in convulsive episodes has been reported. *Gastrointestinal:* Dryness of the mouth, unpleasant taste, nausea, vomiting, abdominal discomfort, diarrhea, constipation, other gastrointestinal disturbances. *Allergic:* Urticaria, rash, ecchymosis, erythema. *Endocrine:* Impotence, changes in libido, gynecomastia, menstrual upset. *Hematopoietic System:* Bone marrow depression, agranulocytosis, leukopenia. *Miscellaneous:* A variety of miscellaneous adverse reactions has been reported by physicians. These include complaints such as dyspnea, hair loss, muscle pain, dysuria, increased sweating, and polyuria.

**DOSAGE AND ADMINISTRATION:** Tenuate (diethylpropion hydrochloride): One 25 mg. tablet three times daily, one hour before meals, and in midevening if desired to overcome night hunger. Tenuate Dospan (diethylpropion hydrochloride) controlled-release: One 75 mg. tablet daily, swallowed whole, in midmorning. Tenuate is not recommended for use in children under 12 years of age.

**OVERDOSAGE:** Manifestations of acute overdosage include restlessness, tremor, hyperreflexia, rapid respiration, confusion, assaultiveness, hallucinations, panic states. Fatigue and depression usually follow the central stimulation. Cardiovascular effects include arrhythmias, hypertension or hypotension and circulatory collapse. Gastrointestinal symptoms include nausea, vomiting, diarrhea, and abdominal cramps. Overdose of pharmacologically similar compounds has resulted in fatal poisoning, usually terminating in convulsions and coma. Management of acute Tenuate intoxication is largely symptomatic and includes lavage and sedation with a barbiturate. Experience with hemodialysis or peritoneal dialysis is inadequate to permit recommendation in this regard. Intravenous phentolamine (Regitine®) has been suggested on pharmacologic grounds for possible acute, severe hypertension, if this complicates Tenuate overdosage.

Product Information as of June, 1980

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VIRGINIA
MEDICAL
OCTOBER 1981

# Annual Report of the Executive Vice President

This is Bob Howard's thirtieth yearly chronicle of The Medical Society of Virginia's activities, and it is his last: On January 1 he will begin a life of retirement. In 1952, the year of Mr. Howard's first report, the Society counted 2,328 members; in 1981 the membership totals 6,478. Thus has the Society flourished under his leadership.

By Robert I. Howard

It is with heavy hand and heart that I begin my final report as your Executive Vice President. It doesn't seem quite right somehow that the most pleasant years of one's life should fly by so quickly. There is consolation, however, in the many wonderful memories I will have to sustain me in the years ahead.

The Medical Society of Virginia has been good to me in so many ways. It has, in reality, been my life for the last 32 years and, as I look back over those years, I can only hope that I have left a few footprints, however small, here and there along the way. I shall be forever grateful for having been accorded the privilege of sharing these years with you.

Time, in its own subtle way, marches ever onward. It leaves in its wake the scattered remains of ideas good and bad, debris composed of good intentions and best laid plans and the hopes and fears of all of us. But—time is almost always fair and for every defeat there is usually a victory and for every failure a success. It is the greatest of teachers because its textbook is a thing called "experience".

Time has been good to The Medical Society of Virginia. I well remember when its membership was barely 2,000. Today it is almost 6,500. Its budget, over a 32-year period, has increased from $64,000 to $810,000. And even so, our dues of $150 remain the fifth lowest in the entire nation. The Society has helped unite the state's physician population and mold it into an effective force for good. This effective force has made itself known in the halls of Congress and the committee rooms of the General Assembly.

The Medical Society of Virginia of today is a far cry from the Society of the 30s and 40s. It is many things to many people—continuing education, Vanguard, professional liability coverage, group insurance, legislation, public relations, interprofessional liaison, AMA representation, congressional action, ethics—and on and on. Although we have come a long way in a relatively short period of time, our potential for accomplishment knows no limitation.

The past 12 months have been most interesting from an administrative point of view. Let us briefly

review some of those areas of administrative interest and concern.

**President and Council**

The years come and go all too quickly and the events of today are suddenly yesterday's memories. It is indeed a pity that so many good and wonderful things become lost forever in the dusty pages of history. There is, however, a group of individuals whose memories will never fade. That illustrious group is made up of Past Presidents of The Medical Society of Virginia—leaders par excellence and medical statesmen of the highest order. And now, one more of our Society's finest takes his place in the ranks of these "unforgetables".

Dr. Percy Wootton has been a strong and capable leader—at a time when good leadership has been an absolute must. He has been unbelievably adept at handling matters of an extremely sensitive nature and has provided the administrative finesse and know-how which have resulted in a firm proposal for specialty representation in the House, a new and unique dividend plan which represents a new pricing approach to professional liability insurance, a major efort to work with industry in such key areas as health planning by the private sector, etc.

Yes—we have indeed been fortunate to have Dr. Wootton at the helm these past 11 months. He has been more than a president and boss to the staff. He has been a friend and advisor and a source of strength and understanding. One staff member stated it very well when she said "he has never let us down".

Council will meet for the fourth time during the Annual Meeting and its report to the House will provide ample testimony to the magnificent job it has done. We only wish there were some truly effective way of really letting the membership know how much time and effort members of Council devote to their work. We can only repay them with our gratitude.

**Membership**

The growth rate of an organization is perhaps the best and most accurate of all progress indicators. Assuming this to be the case, we can say without any qualification that The Medical Society of Virginia is doing very well indeed. Even so, these things do not just happen. The fact that over 400 new members have been added to the roles speaks well for the effort expended by the Membership Committee and its staff coordinator, Mr. Moore.

Increasing membership in AMA remains one of our biggest and most important objectives. We have, for some time, looked forward to the day when we would gain our 4,000th AMA member and thus obtain a fifth delegate to this largest and most effective medical organization in the world. It is quite possible—in fact probable—that we will have realized that goal by the time we gather in Norfolk.

We believe the following statistical breakdown will be of interest:

**Annual report, Membership**

August 1, 1980—July 31, 1981

| | |
|---|---|
| August 1, 1980 | 6,333 |
| New Members | 404 |
| Reinstated | 64 |
| | 468 |
| Deaths | 53 |
| Resigned | 85 |
| Dropped | 185 |
| | 323 |
| Net Increase | 145 |
| July 31, 1981 | 6,478 |

**Finances**

Even in these days of economic chaos your Society remains in sound financial condition. We are concerned, however, over the fact that expenses associated with certain key services and projects continue to increase at what your Executive Vice President considers an alarming rate. It is for this reason that we are continually evaluating these projects and reassessing our priorities. It is neither feasible nor possible in these times to attempt to be all things to all people. It is possible, however, to be objectively selective when planning for the future—thereby making certain that our funds are spent wisely and effectively.

The complete financial picture—as portrayed in the auditor's report—will be published in an early issue of VIRGINIA MEDICAL. We believe you will be pleased with the auditor's findings and take satisfaction in the fact that your Society continues to function according to the sound and conservative business philosophy which has always governed its fiscal affairs.

We feel quite safe in predicting that your Finance Committee will again present to the House a balanced budget for its consideration.

**Personnel**

As everyone must know by this time, Jim Moore has been recommended as the successor to the retiring Executive Vice President. Jim has served the Society well during the past 15 years and possesses the knowledge and experience to make a fine administrative officer. Our efficient computer program can be attributed in large part to his efforts and the fact that our professional liability plan is considered one of the very best in the nation is no accident. Jim helped make it so. Those who have worked closely with Jim over the years are expecting big things of him.

It is with the greatest pleasure that we welcome Dick Immel to our staff. Dick will assume the du-

ties and responsibilities of Jim Moore and will be in charge of membership records and computer services.

Although our membership continues to grow at an impressive pace, our staff has not increased in number. It remains the smallest of any major medical association anywhere. Your Executive Vice President never ceases to be amazed at the truly fantastic job performance of these wonderful people. He would like this year to offer a warm and special expression of thanks to the following staff members for their loyalty and total dedication: Mrs. Candler, Mrs. Brown, Mrs. Ambrose, Mrs. Gray, Mrs. Renalds, Mrs. Strawderman, Mrs. Stockmar, Dr. Nelson, Mr. Moore, Mr. Osburn and Mr. Immel.

I will miss them.

**Virginia Medical**

It seems there is no limit to the achievements of our VIRGINIA MEDICAL. Once again it has—in open competition—been judged the best publication of its kind in the nation. The credit, of course, properly belongs to Mrs. Gray, Managing Editor, and the Editorial Board headed by Editor and Chairman, Dr. W. T. Thompson.

A state society journal is more than just a source of news. It has a supportative role as well—and an educational role—and a communications role—and a promotional role—and on and on. That is what we particularly like about our VIRGINIA MEDICAL. It is a balanced publication in every sense of the word, and effectively fulfills its responsibilities to the membership. It is easy to understand why reader interest has tripled in the past several years and why the VIRGINIA MEDICAL is fast becoming one of the standards by which such publications are judged.

**Meetings**

Your President and other Society representatives have been busy this year attending a number of meetings and conferences of special interest and importance to the membership. Among the meetings atended were the Annual and Interim sessions of the AMA House of Delegates, ten regional legislative meetings, AMA National Leadership Conference, all sessions of the State Board of Medicine, 4-H Club Health Awards ceremony, annual congressional luncheon, Conference of State Society Presidents, Conference of State Journal Editors, meeting with officers of the St. Paul Companies, AMA membership workshop, three joint meetings with representatives of industry and other members of the private sector, Meeting of Middle-Atlantic Medical Societies, five neighboring state medical society annual meetings, and a number of meetings of component societies and specialty groups.

**The Future**

For the first time in a number of years, the future does not appear completely dark—only about 95% this time! But—a "hope" factor of 5% is better than none and perhaps it will ultimately turn out to be the proverbial light at the end of the tunnel.

Twenty years ago, we shared much of the pessimism of those who predicted that national health insurance was almost upon us. It was difficult not to be pessimistic—especially since government was dismantling our health care delivery system a piece at a time. But, medicine did close ranks and today that chipping-away process has been contained to a limited degree. It is interesting to note that government has fallen victim to the monsters it helped create—inflation and economic disarray.

The climate in Washington seems somewhat more favorable than it has been in some time and now, more than ever, medicine should mend its fences, consolidate its position and establish a line of defense sufficiently strong to resist any and all bureaucratic onslaughts for another 20 years. At the risk of sounding a bit trite, we wish to emphasize that "the future is in your hands".

It is difficult to realize that your Executive Vice President has now completed his final report to the membership and House. Words do not come easy at such a time and there is no way I can ever adequately express my appreciation for having had the privilege of serving and being a part of this finest of all professional associations. I bid you all a fond farewell.

The Medical Society of Virginia
PROCEEDINGS

# Annual Reports of Committees

## Aging

The Committee on Aging met on May 14, 1981 at Society headquarters. Those members present were: Dr. Donald T. Faulkner, Chairman; Dr. John P. Lynch; Dr. Harry C. Bates, Jr.; Dr. Richard T. Deaton; Dr. Duncan S. Owen, Jr.; Dr. Joseph L. Crosier; and Dr. Richard W. Lindsay. Ms. Wilda Ferguson, Dirctor of the State Office on Aging, was a guest.

Each member of the Committee was introduced and expressed his interest in the geriatric area. Previous meetings were reviewed.

The requirement of an every-60-day visit to nursing home patients, regardless of whether they are private or not, was discussed in great detail. This discussion, along with a letter written to Dr. James Kenley, Commissioner of Health, by Dr. John P. Lynch, was forwarded to the Vanguard Committee for consideration and action. Also, the fact that some physicians do not visit their nursing home patients at all or very seldom was discussed, and this was one of the reasons for the requirement mentioned above.

A discussion was held also as to the possibility of increasing reimbursement for home health care. The White House Conference on Aging, which will be held this fall, was discussed briefly. Then Ms. Ferguson, our guest, discussed various aspects of the Office of Aging and stated that Bill HJR-162, dealing with day care centers, was passed by the General Assembly but did not provide any additional funding. Following the meeting, several members of the committee toured the Office of Aging as the guest of Ms. Ferguson.

**Donald T. Faulkner, MD,**
Chairman

## AMA Delegates

The Annual Meeting of the American Medical Association House of Delegates in June was, without any doubt, one of the most important in its long history. It came at a time when AMA was faced with the necessity of making a number of policy decisions deemed absolutely essential if it is to continue as an effective leader of American medicine. Your delegates believe that several of these decisions and actions deserve special attention.

A report of the Board of Trustees calling for a reorganization of both structure and staff—along with a $35 annual dues increase—received the most attention. Most of the Board's proposals were approved and dues for 1982 will increase to $285.

In adopting a new functional profile for AMA, the House directed that representation of the profession become the No. 1 priority. Other primary functions will be: 1) providing scientific and socio-economic information, 2) establishing and maintaining standards of conduct and performance, 3) sharing with other organizations the maintenance and implementation of educational standards.

A major decision with far reaching implications resulted in an amendment to the bylaws making direct membership possible. It was brought out that there are still 241,000 physicians who do not belong to AMA and 178,000 of these belong to no state or county societies.

Every effort will be made, however, to recruit members in cooperation with those state societies which will join in a coordinated marketing campaign. A thorough review and reappraisal of the direct membership program will be made after three years.

It is interesting to note that the House postponed authorizing delegates for several additional specialty societies. A number of objections were voiced to granting representation in the House to organizations of sub-specialties with overlapping memberships. It

should be pointed out that 56 national specialty societies do have representation in the House at this time.

It is not possible, for obvious reasons, to present a detailed report of the many other important actions of the House. Consequently, we urge the membership to study the proceedings as published in the *American Medical News*. Those actions pertaining to national health insurance, health manpower, elimination of government funds for new start-ups of HMOs, admission histories and physicals, Federal Trade Commission activities, etc., deserve special consideration.

Meetings of the AMA House of Delegates provide a very special educational opportunity and your delegates encourage you to attend and participate. Bear in mind that reference committee hearings are open to all members of AMA and that your testimony might well be the difference. Also, keep your delegation advised concerning your opinions. Many AMA policies began with an individual physician who had a good idea and pursued it through the democratic process.

**Michael A. Puzak, MD,**
Chairman, Virginia Delegation

## Auxiliary Advisory

It has been a privilege to chair the Advisory Committee to The Medical Society of Virginia Auxiliary, under the presidency of Mrs. M. Pinson Neal, Jr., Richmond. The Presidential theme was "'Take Time to Care". This thrust prevailed through her activities as well as the functions of her officers and committees. Emphasis was placed on membership, legislation, AMA-ERF, and health education(through the extensive cooperation with other agencies and volunteer groups).

Membership increased to the extent that the Virginia Auxiliary gained another delegate to the AMAA House of Delegates and received two membership awards at the national convention in June. In addition, the resident physician/medical student spouses membership was the greatest in the United States, giving the Auxiliary another outstanding award.

Legislation continues to be a priority. A "Day in the Legislature" preceded by a coffee in the General Assembly building given by the Auxiliary for legislators was held in January. It was a highly successful exchange of ideas and both the Attorney General and Lt. Governor of Virginia were in attendance.

Through a myriad of activities by the component auxiliaries on

**▼ At a meeting of the Aging Committee: left to right, Dr. Donald T. Faulkner, Norfolk, chairman; Wilda M. Ferguson, director, Virginia Office on Aging; Dr. Richard T. Deaton, Portsmouth; Dr. Duncan S. Owen, Jr., Richmond; Dr. John P. Lynch, Richmond; Dr. Harry C. Bates, Jr., Roanoke; Dr. Joseph L. Crosier, Petersburg; and Dr. Richard W. Lindsay, Charlottesville.**

health education, medical scholarships and medical equipment, a total of over $150,00.00 was contributed. AMA-ERF funds received by the three medical schools within Virginia was a total of $33,575.32. This is the result of heavily committeed auxilians and dedicated alumni.

Among the innovations instituted this year was the development of a communication instrument called *FLASH*, which was started to improve the internal communications between officers and chairman.

Aside from personal visitations by the President and President-Elect, Mrs. John Hannon, Fairfax, to the component auxiliaries in various geographic locations within the commonwealth, they attended three National American Medical Association Auxiliary meetings in Chicago.

A mid-year board meeting was held at Wintergreen. This also materially aided communication and stimulation toward common goals. The American Medical Association Auxiliary representative at this board meeting, Mrs. John Bates, spoke on the importance of membership, emphasizing that the Auxiliary is one united unit. Keeping in line with the AMAA national goal of "Shape Up for Life", a psychologist provided a workshop on stress management in the '80s. A continuing medical education course for spouses was presented on "New Advances in Medical Imaging", which provided several hours credit from the Medical College of Virginia/Virginia Commonwealth University.

The Spring Workshop establishing goals for 1981-82 was held in Richmond in May and organized by Mrs. Hannon.

Mrs. Neal presented quarterly reports to the Council of The Medical Society of Virginia. A great amount of time and energy has been expended by the Auxiliary's Bylaws Committee, with a total revision to meet current standards of the AMA, AMAA, and current MSVA activities and structures and to provide a legal basis for application for a tax-free status.

Communications, functions and activities of the Auxiliary as they relate to the component societies, the American Medical Association Auxiliary, and other state medical society auxiliaries have brought the volume of written correspondence to a level that is ridiculous to ask our Auxiliary President to cope with; nor is it appropriate or reasonable to expect physicians' clerical staffs to support the diverse functions of *our* auxiliary.

At last count, 23 states had duly designated full- or part-time executive directors of secretaries for their auxiliaries. If we expect our Auxiliary to flourish, develop and help foster the image of medicine as they have done so creditably over the last several generations, this item warrants high priority.

As this report was written, a prospectus was being developed for presentation to Council to enumerate the minimum requirements to provide our Auxiliary with this professional assistance so vital in this era of advanced and rapid communications.

The Auxiliary has provided the American Medical Association Auxiliary leadership with Mrs. Charles Smith, Arlington, who was elected to the Nominating Committee for 1981; Mrs. William Reardon, Fairfax, elected as Eastern Regional Vice President for a second term; Mrs. Neal, appointed as Eastern Regional Legislation Chairman for 1981-82.

It has been an interesting year for the Auxiliary with new organizational staffing plans highly recommended. With the total Medical Society of Virginia Council cooperation, hopefully it will be recognized as a necessity, understood with the openness with which it is presented, and sanctioned immediately.

It has been a pleasure to work with the Wootton-Neal team, who have hailed from the same city and have indeed left their mark on Virginia's medical community.

**Custis L. Coleman, MD,**
Chairman

## Cancer

The President of the Society provided the Committee with information regarding HR 2642, a bill to authorize the use of heroin for terminally ill cancer patients. The Committee voted unanimously not to support this proposed federal legislation. However, it went on record as supporting continued scientific evaluation of the use of the drug for these patients.

A repeated appeal was made for all physicians to complete death certificates in more detail and with more care after reviewing the listed instructions. The quality of Virginia's cancer mortality data would be significantly improved thereby.

A welcome was extended to Mr. James B. Poppell, who has succeeded Mr. Bernard Woodahl as executive vice president of the American Cancer Society, Virginia Division.

**Recommendation**

**That The Medical Society of Virginia support legislation to add additional funds and positions to the State Health Department's budget and manpower ceiling, specifically for a limited expansion of the Virginia Tumor Registry. It is estimated that an additional $115,000 per year and five new positions would be required in order to add all of the remaining non-participating Virginia hospitals with 300 beds or more to the Registry and to thereby increase the proportion of acute care hospital**

beds participating in the Registry to approximately 70%.

With the aid of supplemental funding by the State Health Department, the Virginia Tumor Registry has been able to continue its effective performance. Because there are no guarantees that this funding can be continued and that additional funding can be expected, the Committee makes this recommendation; passage of such legislation would do much to assure the continued vitality of the Registry.

**William W. Old, III, MD,**
Chairman

## Education

The Committee on Education met in Williamsburg in November 1980 during the Annual Meeting of the Society. An organizational meeting was held on February 7, 1981, at which time the Chairman introduced the new members: Dr. Michael L. Cherwek of Fredericksburg, Dr. Henry S. Spencer of Richmond, and Dr. John P. Tokarz of Alexandria.

### Accreditation

The AMA and the residual Liaison Committee on Continuing Medical Education resolved their differences and recombined as of January 1, 1981, as the Accreditation Council for Continuing Medical Education (ACCME). ACCME has designated The Medical Society of Virginia as the accrediting body for intrastate organizations, except the three medical schools, which are surveyed directly by ACCME. The accredited organizations in Virginia are:

Community Hospital of Roanoke Valley, Virginia
Department of Health, Commonwealth of Virginia
Eastern Virginia Medical School, Norfolk (The Eastern Virginia Inter-Hospital Medical Education Committee, 28 hospitals, is now related to EVMS,which sponsors their programs).
Fairfax Hospital (which co-sponsors programs in two other hospitals), Falls Church
Gill Memorial Hospital, Roanoke
Medical College of Virginia, VCU (22 hospitals plus 11 in Southwest Virginia jontly with UVA)
Medical Society of Virginia Scientific Program
Memorial Hospital, Danville
Northern Virginia Consortium (Alexandria Medical Society, 5 hospitals and 9 other organizations)
Potomac Hospital, Woodbridge
Riverside Hospital, Newport News
Roanoke Memorial Hospital, Roanoke
St. Luke's Hospital Consortium, Richmond
University of Virginia School of Medicine (13 hospitals plus the 11 in Southwest Virginia, jointly with MCV-VCU)
Winchester Memorial Hospital, Winchester

The Society's program is well organized now and has considerable visibility. Most physicians in Virginia are within an hour of some institution that either has its own or co-sponsored programs approved for Category I. In these days of high costs for travel and the time away from practice involved to go to meetings, the Committee believes it is increasingly important to continue the development of excellent continuing education opportunities for all physicians in Virginia. Now that an organizational base is in place, we should begin to focus more on the quality of programs, improving their relevance to practitioner needs and influencing clinical competence. If we can achieve these objectives, then continuing education should definitely have a favorable effect upon the quality of patient care, our ultimate goal.

### CME Requirement

On September 17, 1977 the House of Delegates decided that membership in the Society after January 1, 1979, would depend on the completion "of a minimum of ninety hours of approved CME each three year reporting period. . . ", and that "one-third of the number of hours of CME . . . achieved in any report period must qualify as Category I hours. . . ".

To implement the program those members whose last names began with the letters A through G were required to get 10 hours of Category I and 20 hours of other category credits, or all 30 hours could have been in Category I, in calendar year 1979. There were 2130 members in this group. Three were dropped for non-compliance.

To continue the program those whose last names began with the letters H through N were required to get 20 hours of Category I, and 40 hours of other categories, or all 60 hours could have been in Category I, in calendar years 1979 and 1980. This group numbered 1755. As of August 10, the status of 20 was undetermined. The Membership Committee will decide the disposition of this group.

To complete the first run of the required program, those whose last names begin with the letters O through Z are required to have 30 hours of Category 1 and 60 hours of other categories, or all 90 hours could have been in Category I, in calendar years 1979, '80 and '81, to be reported no later than April 1, 1982. This group numbers 1931.

### CME Questionnaire

As approved at the June 28, 1981 meeting of Council, a questionnaire was sent in September 1980 to all physicians residing and/or practicing in Virginia. The study was designed and has been carried out by Dr. Paul Mazmanian, Assistant Director of Continuing Medical Education at MCV. Its purposes were to determine the forms and amounts of CME used by Virginia physicians, the cost to them, their perception of its quality and preferences for methods and sources.

A total of 11,179 questionnaires went out, to 6,036 members and 5,143 non-members. There were 3,966 replies from the members, a rate of 65%. These data were reported in the May 1981 issue of VIRGINIA MEDICAL.

Replies totalling 1,894 were gotten from non-members, a less satisfactory 36%. These data are being analyzed, to provide, with those of the membership, a report on the CME interests and activities of the physicians in Virginia.

**Central Registry of Meetings**

Those planning programs are urged to notify the CME office at The Medical Society of Virginia so that their topics and dates can be listed. Many conflicts could thus be avoided.

**Annual Meeting**

The Education Committee has been assisting Dr. Richard Lindsay, Chairman of the Program Committee, in the development of the scientific program for the Annual Meeting. We are trying to get the speciality and subspecialty groups, whenever feasible, to have their annual meeting at the same time as that of the Society.

**Retirement of Bob Howard**

The Committee notes with regret the retirement of Mr. Robert Howard, who has operated the Society since March 1950. We want to emphasize what every member and officer knows, namely, that he has been the nuts and bolts of the Society. We will miss him greatly and wish him every happiness. A parting word of advice—swing back *slowly*—keep your *eye* on the ball—and *follow* through. (Courtesy of Dr. Nelson).

The Committee gratefully acknowledges the invaluable direction provided by Dr. Nelson, the assistance of Mrs. Stockmar, and the support of the office staff, the officers and Council of the Society.

There are no recommendations to the House of Delegates, except to encourage continued support of the Society's CME Program.

**Charles L. Crockett, Jr., MD,**
Chairman

## Ethics

It was a quiet year for the Ethics Committee. We had only one inquiry, and the Committee met over the telephone and solved the problem promptly.

We have no recommendation except to emphasize to the members of the Society to get acquainted with the changes and revisions in the Principles of Medical Ethics of the American Medical Association.

**Anthony J. Munoz, MD,**
Chairman

## Highway Safety

**Recommendations**

**The Highway Safety Committee respectfully requests that The Medical Society of Virginia strongly recommend that legislation be passed requiring automotive restraints for infants and children.**

The main cause of childhood death and injury has been identified and can be cured! Each year for the past five, more than 2,000 American youngsters, from birth to the mid-teens, died as a result of being unrestrained passengers in automobiles. In Virginia, accidents account for 40 percent of all childhood deaths, and motorcar accidents comprise 42 percent of these fatal accidents.

Our studies on unrestrained dummies that are subjected to crashes have shown that a 30-mile-per-hour collision is like a fall from a three-story building. Though a mother may think she can hold onto and protect her ten-pound baby in such a crash, her baby actually becomes a 300-pound weight. If the mother were the strongest female body builder, she would still not be able to hold onto her child. An unrestrained child is also top-heavy and is thrown forward head-first.

The cure to the epidemic of child death and injury is simple and well-researched. Children can be restrained in rearward-facing infant carriers until they weigh more than 20 pounds. As they grow, they can then be held in a child restraint car seat. So, "all it takes is a click". However, this cure is hard to apply, and voluntary compliance often does not result in an adequate increase in the use of child restraints. Moreover, safety belt use is at an all-time low of less than 9%. The belts are especially shunned by poor and uneducated citizens.

A child restraint may be thought of as an immunization against a disease. In our entire country in 1978, 79 people of all ages died from diseases against which, by law, people must be immunized. During the same year, 670 children under 5 years of age died while riding in motor vehicles. With such figures in mind, the state of Tennessee passed a child restraint law, Rhode Island and West Virginia followed, and other states are now considering child restraint legislation. If child restraints were mandated in Virginia, it is reckoned that they would save 12 young lives a year, prevent 1,000 injuries and save 10 million dollars.

The American Academy of Pediatrics has made the mandating of child restraints its No. 1 issue, and the Virginia Pediatrics Society now has a "first ride, safe ride" program that is gathering steam. In this program, newborns ride home from the hospital in a safe child carrier, rather than in the mother's arms. Because child restraints are so important for the safety of children who cannot speak for themselves, the Department of Transportation Safety of the Commonwealth of Virginia, under the direction of Mr. John T. Hanna, along with pediatricians and traffic safety groups, supports legislation, written by Virginians, for Virginians, requiring restraints for infants and children.

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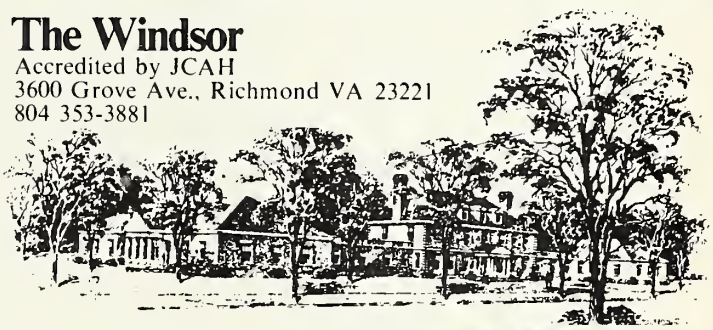

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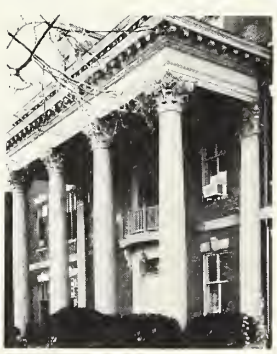

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**The Highway Safety Committee recommends that The Medical Society of Virginia assert that the 55-mile-per-hour speed limit be preserved in Virginia.**

Since the 55-mile-per-hour speed limit was enacted, the average speed of cars on Virginia's interstate rural roads has dropped by 9 miles per hour. These are the roads where many motorists had been killed. The Virginia Department of Transportation Safety estimates that the reduced speed limit saves 200 lives per year in Virginia.

**The Highway Safety Committee recommends that The Medical Society of Virginia reaffirm its support for the retention of the mandatory provision for the use of motorcycle crash helmets in Virginia.**

Motorcycle helmets are mandatory for motorcyclists in Virginia. These helmets are estimated to save 30 lives per year in our state. In states that have rescinded their helmet laws, helmet use drops by 50%, and the death rate for motorcyclists jumps.

**Daniel N. Kulund, MD,**
Chairman

## Hospital Advisory

Our counterparts of the Virginia Hospital Association, who were to host our annual meeting, felt there was insufficient material for our discussion. Accordingly, no meeting was held and no report was generated.

Your Chairman feels that within the next 12 months, sufficient matters of concern will arise, and he intends to call a meeting early next year.

**Gerald J. Fisher, MD,**
Chairman

## Impaired Physician Study

**Recommendations**

**That a program be established by The Medical Society of Virginia to assist the recovery and rehabilitation of physicians in need in the state of Virginia. These problems may include mental or physical illnesses as well as alcohol or drug abuse, these adversely affecting the proper practice of medicine, or in need of help for their recovery. Membership in the Society is not a requirement for assistance.**

**The program should be titled "Physician Health and Effectiveness Program." Such a title would point out the objectives of healthy, effective medical practice in contrast to stressing "impairment." Several other states are employing a similar title.**

**It is recommended that a new committee be established to further define and implement the program. The Study Committee has only undertaken the general feasibility, desirability and general outlines of such a program. The ongoing or implementing committee should not be bound by the outline below.**

**Discussion**

The Committee offers these guidelines for the program recommended above.

1. A "central" or "state" committee be appointed by the President of the Society. The committee would consist of five members, interested and knowledgeable in this field. This committee would be involved as outlined below, but also responsible for general policy, procedures, and financial aspects of the program. Members of this committee would not be involved in direct treatment of physicians in the program.

2. Each component medical society should be prepared to appoint two or more physicians to investigate or validate concerns that have been received about an individual. These "validators" do not confront the physician but determine if the complaint is justified from other sources. They would report their findings and recommendations to the central committee.

3. When needed, there should be available a group of "intervenors," "confronters" (or some other name) to approach the physician in need who had not sought help voluntarily. These "helpers" should be distributed regionally. They would act as a small committee of at least two or more when urging the physician to seek treatment. When dealing with the problem of substance abuse, at least one of the committee members should be a recovering chemical abuser. Members of these committees would not become involved as therapists.

4. There will also be a need for a local liaison person to follow the course of a physician in the program. This person might be a responsible, objective friend or colleague of the physician, or someone independent. They would be appointed by the presidents of the local societies. They would act as friends and confidants to the physician but also inform the central committee, periodically, as to the individual's progress or lack of same. These persons may or may not be a part of the original intervention team.

5. Reporting and subsequent actions are recommended as follows:

Anyone may report—spouses, other physicians, patients, nurses, hospital personnel, individual physicians, etc. Concerns may be expressed through local medical societies or Medical Society of Virginia headquarters; by phone, personally or by mail. Concerns from local societies will be referred to headquarters. The Medical Society of Virginia will designate and train persons to handle these matters.

▲ **At a meeting of the Joint Practice Committee: left to right, Dr. C. Barrie Cook, Fairfax, chairman; Marleen DeLauder, RN; Maxine C. Burton, RN; Dr. Joseph W. Milam, Danville; Joanne Allen, RN; Dr. Charles H. Townes, Colonial Heights; Eleanor F. Garrett, RN; Dr. Robert K. Duley, Richmond; Sarah F. Palmer, RN.**

MSV headquarters will then phone the local society to validate the concern received.

This information would then be made available to the central committee, which would appoint two or more intervenors, who would have personal interviews with the physician, with or without an appointment. The physician would be confronted with the concerns. If he/she refuses to recognize a problem and does not voluntarily request rehabilitation the intervenors would request that he/she think about it for 24 hours. The intervenors would then call on the physician 24 hours later. If the physician does not voluntarily seek rehabilitation, they report back to the central committee. The central committee then decides if report of the physician to the Board of Medicine is needed. (It was agreed that all information obtained by the intervenors during their discussions with the physician should be shared with the Board of Medicine when the individual is reported to the Board).

If the physician agrees to enter voluntarily a rehabilitation program, the intervenors would report back to the member of the central committee who appointed them and suggests proper rehabilitative therapy or treatment program. The liaison person should be appointed as described above and would followup on the progress of therapy through reports from the treating physician or institution and contacts with the treated physician.

6. The estimated cost of implementing the program for the first year is approximately $10,000. Succeeding years should be less. This expense should be borne by The Medical Society of Virginia.

7. As previously noted, it was agreed that one of the intervenors should be a recovering alcohol or substance abuser. A suggestion was made that training sessions for intervenors might be held at the Society's annual meetings.

8. At the request of the Committee, these recommendations were presented to the Virginia State Board of Medicine. The Board was generally in favor of such action by The Medical Society of Virginia.

9. The Society should establish a permanent committee to implement the Physician Health and Effectiveness Program.

**W. D. Buxton, MD,**
Chairman

## Joint Practice

The Committee met on two separate occasions as per their usual custom. In the meeting of October 4, 1981, it was noted that a clarification statement in regard to nurse practitioner status appeared in the *Voice*, a magazine for the Virginia nurse. It also was published in VIRGINIA MEDICAL.

A letter was written to the continuing education departments of the three medical schools requesting that nurses be permitted to attend and participate in continuing education programs of the schools where appropriate. The Committee also during the year become concerned about the prescription writing laws in Virginia and whether or not this is a permissable activity for nurse practitioners. This is presently under investigation by the Virginia State Board of Medicine and Nursing. The Committee also discussed the need for a surgical assistants training program at Eastern Virginia Medical School, as there is presently no form of licensure for these individuals in Virginia. No actions or recommendations on this item were taken. The Committee also noted that the American Medical Association has done away with the Joint Practice Committee of the American Nursing Association and the AMA.

**Recommendation**

**That the Joint Practice Committee as presently operational in the state of Virginia be continued.**

**C. Barrie Cook, MD,**
Co-Chairman

## Long Range Planning

The Long Range Planning Committee was assigned the duty of selecting a nominee for Executive Vice President to succeed Mr. Bob Howard when he retires. The Committee met several times and interviewed many candidates. It was the consensus of the Committee that Mr. James L. Moore, Jr., be recommended to the President and Council for nomination to the House of Delegates.

Council, at its meeting on November 6, 1980, requested that the Long Range Planning Committee review the matter of presidential expenditures, and make its recommendations known prior to the next annual meeting. This problem has been discussed at great length by the Committee, and **it is the recommendation of the Committee that the President be reimbursed for all expenses and receive $100 per day or fraction of a day spent on Society business requiring him or her to be away from his or her office.**

At the suggestion of the President, the Committee has had considerable discussions in regard to the future of the Vanguard program, and **it is the recommendation of the Committee that the Executive Vice President, with the assistance of the chairman of the Vanguard Committee, assume the responsibility for this committee and hire extra secretarial help, if necessary.**

**The Long Range Planning Committee also recommends that all paid employees of The Medical Society of Virginia and all paid employees of any of its Committees should report directly to the Executive Vice President.**

The Long Range Planning Committee discussed the advisability of using the money that is currently being given each year for medical scholarships towards the support of the AMA medical student societies. We feel that this subject needs further discussion by Council, and the Committee has no recommendations at this time.

Many other problems impinging upon the present and future affairs of the Society have been discussed, but there are no further recommendations at this time.

**Raymond S. Brown, MD,**
Chairman

## Maternal Health

**Recommendations**

**That the section of the proposed "Rules and Regulations for Health Care in Virginia" dealing with birthing centers specify that any such center must be physically connected to an acute care hospital and operated under the supervision of that hospital.**

Experience of this Committee and the profession nationally over many years substantiates the conviction that unforeseeable events during labor can occur which threaten the welfare of the baby and the mother both from the standpoint of infant damage and mortality of baby and mother. The adjacency and administrative supervision of the hospital would, in the opinion of the Committee, reduce this human damage while offering all of the proposed benefits of the family centered birthing center.

**The Committee strongly urges that funds for the maternal and child health hospitalization programs be continued and expanded. This will require specific legislative action, and the support of The Medical Society of Virginia is requested.**

The Committee reexamined the continuing problem of the general lack of availability of support for the medical care of indigent obstetrical patients who do not happen to fall into certain high risk categories. This involves both prenatal care and delivery. A great deal of the prenatal care is provided through Health Department clinics but there is no provision for payment for hospital costs and delivery and professional costs for many of these patients. Pregnant women are thus singled out for this unusual discrimination of non-support in this health care system. The academic residency programs do receive some assistance for this purpose which, in turn, varies greatly

among the institutions. The community hospitals, particularly in rural settings, bear this unusual burden, which indirectly results in some compromise in the care received by patients. Furthermore, the Committee was informed that legislation effective July 1, 1982, will make funds for maternal and child health hospitalization programs no longer available. This further exacerbates this problem.

**General**

The Committee continues to examine and evaluate maternal deaths which occur in Virginia. Preventable factors which might be beneficially influenced by different professional care, facility capabilities, or regulations are sought and identified. The rate (1.9 maternal deaths per 100,000 deliveries) is comparable to similar populations nationally, but a greater dissemination of the information learned from these studies is judged important by the Committee with a view toward contributing to the further reduction of this rate and even to the prevention of its rising. The Committee will explore ways to make the information learned from these studies more widely and beneficially available to practicing physicians in Virginia. Publication of the annual statistics, comparison with other states, and identification

**▼ At a meeting of the Membership Committee: left to right, Dr. Charles H. Crowder, Jr., South Hill, chairman; Dr. John A. Owen, Jr., Charlottesville; Dr. Ira J. Green, Alexandria; Dr. Leon I. Block, Falls Church; Dr. Robert L. Keeley, Roanoke; Dr. Russell D. Evett, Norfolk; Dr. William H. Sipe, Newport News; Dr. James L. Patterson, Jr., Pulaski; and Dr. James A. Shield, Jr., Richmond.**

of common denominators in maternal deaths in VIRGINIA MEDICAL is one suggestion. Another includes the wider use of anonymous, unidentifiable case reports for educational purposes.

The Committee discussed at some length relevant aspects of the proposed hospital rules and regulations to be presented to the State Board of Health by the State Health Department. Members will further examine this and make recommendations to the Perinatal Services Advisory Council prior to the public hearing by the State Board of Health.

**Mason C. Andrews, MD,**
Chairman

## Negotiations

The Negotiations Committee does not have any recommendations to present to the House of Delegates for this annual meeting.

During the past year, members of the committee have indicated continuing interest in negotiations training courses. One member has taken the advanced training course this year.

At the January 31, 1981, meeting of the Council of The Medical Society of Virginia, it was moved that the Negotiations Committee look into the advisability of sponsoring negotiations training courses in the state. Subsequent to the Council action, reorganization of the American Medical Association has caused its Department of Negotiations to be disbanded as of November, 1981. The functions of this department are to be assumed by the Legal Department, but the details have not been worked out at this time. Plans are now being developed by a private organization to continue negotiations training course.

**Levi W. Hulley, Jr., MD,**
Chairman

## Membership

The Committee on Membership has met on one occasion during the past year, and an additional meeting is planned prior to the Society's annual session.

The Committee is pleased to report that the Society has had a very successful AMA Membership Campaign, and it is almost a certainty that we will exceed 4,000 AMA members by the end of the year. In reaching this goal the Society would be entitled to a fifth delegate to the AMA.

Your Committee has also discussed student and resident membership, and recommendations will be found in the report of the Bylaws Committee to the House.

The Committee takes pleasure in its one recommendation to the House of Delegates: the nomination of Percy Wootton, MD, President of The Medical Society of Virginia, for Honorary Active Membership.

**Charles H. Crowder, Jr., MD,**
Chairman

## Mental Health

At the meeting of the Mental Heath Committee on June 4, 1981, the Chairman brought the Committee members up-to-date on the deliberations of the Impaired Physician Study Committee.

Dr. Stuart Ashman informed the Committee that the Neuropsychiatric Society of Virginia has separated alcoholism from drug addiction and psychiatric illness and has formed a task force on alcoholism. Also, a Committee on the Impaired Physician had been formed in the society.

Note was taken that many impaired physician programs have included continuing medical education and medical competency as part of rehabilitation measures.

Dr. Ashman raised the question of private psychiatrists pre-screening patients for admission to state hospitals. This matter was taken up by the Chairman with the Commissioner of Mental Health and Mental Retardation.

The Committee voiced strong support for the appointment of a psychiatrist to the post of Commissioner of the Department of Mental Health and Mental Retardation, and members were urged to contact the Governor and other individuals.

There was general discussion on the need for increased participation of psychiatrists in the functions of local medical society programs as well as the state Society.

Concern was also expressed on the trend of cutting back of mental health coverage in various insurance programs.

There were no recommendations.

**W. D. Buxton, MD,**
Chairman

## Public Relations

The Committee met on April 25, 1981, and though the attendence was less than stellar, the enthusiasm of those there made up for it.

The Committee has watched with interest the pilot program put forth in Northern Virginia on the effect of public education and public awareness of the impact of such education. The Council has wrestled with the adaptability of this project across the state, and the Committee felt this deserved more consideration, though no specific recommendations were made.

The Committee considered the material forwarded to it regarding the AMA's business-industrial coalition in an attempt to contain medical care costs. Several instances of local business and industry seeking help were cited.

**It is recommended that the Society study the feasibility of contacting the Virginia State Chamber of Commerce and the Virginia Manufacturers Association as to the possibility of an exploratory meeting with representatives from the Society. A letter to both organizations would solicit suggestions as to agenda items, a time and a location of such a meeting.**

The Boy Scout Jamboree, which by the time this goes to press will be history, was discussed regarding the Committee input into soliciting physicians for medical volunteers for the period of the jamboree. An article appeared in the May issue of VIRGINIA MEDICAL regarding the jamboree and a coupon soliciting volunteers was included. Followup to this was a telephone campaign through the larger component societies.

Next, a discussion of the annual meeting press coverage was held. Though not all press coverage of the Williamsburg meeting was just as we would have liked it did give us good exposure. Not only have we received good exposure for the meeting, but, for instance, as of April, Dr. Wootten, our President, had received some 300 column inches as a result of contacts made during the annual meeting.

**The Committee recommended that the effort to cultivate the press should be continued and invitations should be sent to provide press coverage for the annual meeting in Norfolk.**

It was hoped the Tidewater press could be invited to a luncheon for briefing on items to be discussed at the annual meeting.

A discussion of the Uniform Donor Form on the state driver's license was next addressed. There appears to be the possibility of a joint project between the Society and the Lions Club of Virginia to promote the use of the form found on the license.

▲ **At a meeting of the Mental Health Committee: in the front, Dr. W. Dimmock Buxton, Charlottesville, chairman, furthest left, and Dr. Stuart Ashman, Jr., Virginia Beach; on the steps, reading from the top, Dr. Bernard M. Williams, Waynesboro; Dr. Robert H. Thrasher, Norfolk; Dr. R. Terrell Wingfield, Lynchburg; Dr. Emory F. Hodges, Jr., Alexandria; Dr. Asad M. Masri, Petersburg; and Dr. Robert O. Friedel, Richmond.**

**It was the recommendation of the committee that since this was a positive, worthwhile program, it should be supported and implemented if possible.**

There has been a lot of local public relations effort about the state. Speaker's bureau, TV and radio exposure and press exposure have been well utilized with varying success throughout the commonwealth. It is encouraging to the Committee that more public relations seems to be prevalent than a few years ago. The Committee doesn't care to dictate an overall statewide public relations stance, but rather seeks to encourage, assist and communicate grass-roots (local) endeavors to convey medicine's message to the Virginia consumer.

**Frederick K. McCune, MD,**
Chairman

## Liason to PSRO

The Reagan administration has proposed phasing out the PSRO program in 1983. The proposed decrease in the current PSRO budget was partially adopted by Congress and this has resulted in the defunding of 46 PSROs and all long term care PSRO review in the country as of September 30, 1981. However, the congressional committees dealing with the Medicare and Medicaid programs are showing increasing concern about dismantling the only program that has shown some effectiveness in controlling utilization and there is a serious proposal in the Senate (S 1250) to revamp and extend the PSRO program for an additional four to six years. After decades of government regulation of health care, few people think the pro-competition approach can be established and made effective by 1983. To establish open-market competition among health-care providers, it will require that all patients assume a financial risk for their utilization of health care services. This will not only involve Medicare and Medicaid beneficiaries but also the enormous number of people whose health insurance is purchased by private industry.

Nevertheless, the administration is moving toward this end, which may well be the most effective cost containment method possible. In the meantime, the AMA and The Medical Society of Virginia have supported the principles of peer review, utilization control and quality of care assurance activities by the profession while calling for the elimination of federal funding and regulation of peer review activities.

The Liason to PSRO Committee sees several problems with the current PSRO program. There is, in general, a lack of loyalty amongst practitioners to their own PSRO; their loyalty tends toward their own hospital medical staff. The heavy hand of federal regulation is universally disliked. Utilization review is perceived as a chore that is not very cost effective. The lack of support by the AMA and the AHA is also detrimental to PSRO activities.

On the positive side, there are substantial strengths in the PSRO program. The ability to collect and analyze patient care data, profiling the data to pinpoint potential areas for beneficial improvement in utilization and quality, and the conduct of multi-institutional medical audits, all provide invaluable and heretofore unavailable information for educational purposes. The end result of physician education is the improvement of patient care.

A few clear-thinking individual members of The Medical Society of Virginia, not directly connected with PSRO, concur that the profession needs to continue an effective and active peer review program, no matter what the government may do with PSRO. In support of this concept and the AMA position on peer review, the Committee offers the following recommendation.

**Recommendation**

**That The Medical Society of Virginia establish a task force to study the feasibility of a statewide peer review organization that would preserve local physician involvement to the extent possible and that this feasibility study include a study of methods of funding. The task force should include representation from The Medical Society of Virginia, third-party health insurance carriers, industrial purchasers of health insurance, the State Health Department and the Virginia Hospital Association.**

It is anticipated that the task force would also address the strengths and problems that now exist in the PSRO program and attempt to build on the former and resolve the latter.

**Robert A. Morton, MD,**
Chairman

## Liaison to State Bar

Your Committee is very pleased to report that the Councils of both The Medical Society of Virginia and the Virginia State Bar have approved a revised statement of "Principles of Cooperation for Physicians and Attorneys in the Commonwealth of Virginia." As mentioned in the previous report the joint committees met on numerous occasions, and many hours were spent in the preparation of the updated statement originally published in 1958. The booklet has been mailed to the entire membership, and a copy is automatically forwarded to each new member.

The Committee will continue to meet on a yearly basis with representatives of the Virginia State Bar to discuss matters of mutual interest. It has no recommendations for the House of Delegates during this session.

**Claude P. Sherman, MD**
Chairman

## Rehabilitation

The Rehabilitation Committee has continued its primary role of providing consultation and assistance to the Virginia Department of Rehabilitative Services regarding medically related matters. The policies of this department have considerable impact on the medical community as well as patient care, and the Rehabilitation Committee's input into the department's policy formation is most appropriate and valuable. Members of the Committee also provide individual advice and consultation to the department.

The Committee met on May 31,

1981. Fourteen members of the Committee were in attendance. Also attending were representatives of the Virginia Department of Rehabilitative Services. The following actions were taken by the Committee on matters concerning the Department of Rehabilitative Services.

1. Recommended that the minimum anesthesia fee be raised to $50, and that certain special procedures provided by anesthesiologists be handled on an individual consideration basis.

2. Recommended the following procedures as being appropriate for department sponsorship: total knee replacements; arthroscopic knee surgery; electromagnetic induction of bone healing in selected cases; Teflon® injection of vocal cords for vocal cord paralysis; Singer-Blom voice restoration procedure in selected cases.

3. Agreed not to change its previous stand on surgical treatment for morbid obesity.

4. Clarified the provision of payment for surgical assistance as applying only to MD assistant surgeons and co-surgeons.

5. Recommended changes in fee schedules for certain laboratory procedures and for physiatrists performing neurologic and orthopedic examinations.

This has been a most active and productive year for the Committee.

The Committee has no recommendations to the House of Delegates.

**Alexander McCausland, MD,**
Chairman

**▼ At a meeting of the Rehabilitation Committee, of which Dr. Alexander McCausland, Roanoke, is chairman: left to right in the front row, Dr. Thomas C. Apostle, Winchester; Dr. Glassell S. Fitz-Hugh, Charlottesville; Dr. A. Epes Harris, Jr., Blackstone; Dr. J. Treacy O'Hanlan, Waynesboro; in the second row, Dr. Carney C. Pearce, Jr., Petersburg; Dr. Walter S. Johnson, Roanoke; Dr. McCausland; Dr. David K. Webster, Staunton; back row, Dr. Frank A. Strickler, Roanoke; Dr. Reno R. Porter, Richmond; Dr. Hunter S. Jackson, Richmond; and Dr. William D. Rusher, Richmond.**

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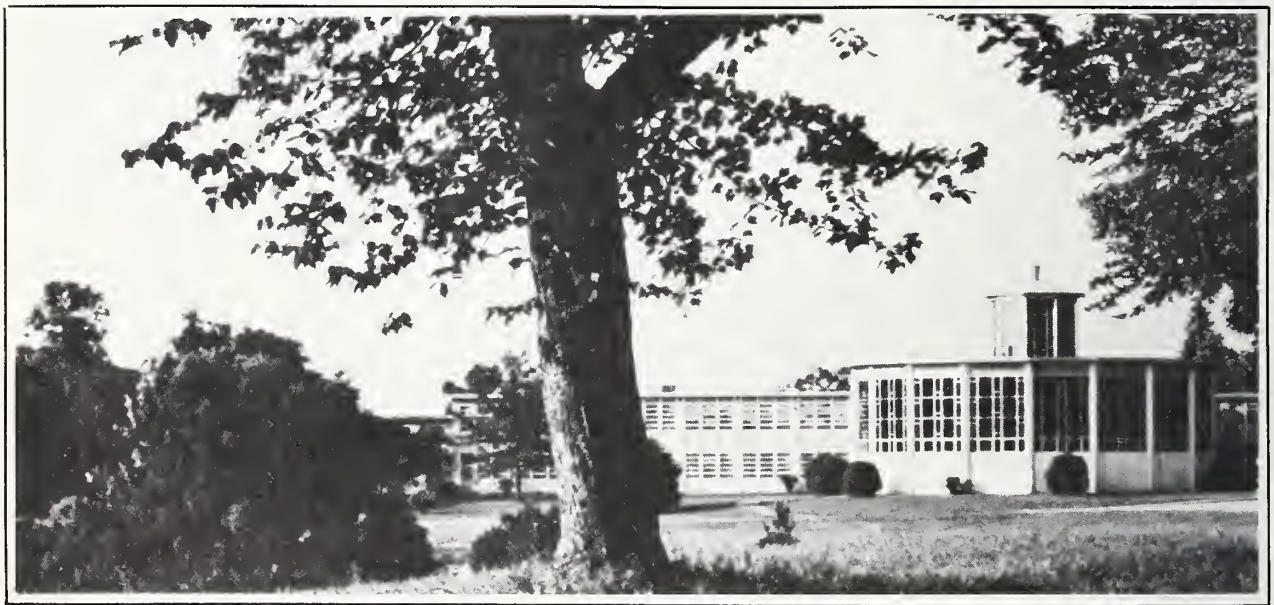

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## Sheriffs Advisory

Members of the Advisory Committee to the Virginia Sheriff's Association noted that at the last meeting of the House of Delegates, The Medical Society of Virginia membership approved a resolution recommending that physicians supporting correctional medicine activities throughout the state of Virginia follow the American Medical Association standards for health care in correctional institutions.

In keeping with that resolution the Fairfax and Virginia Beach correctional institutions both applied for and received American Medical association accreditation. The accreditation achieved was unusual in that it covered two years instead of the normal one-year span with required reexamination.

Committee members continue to receive inquiries regarding the process of AMA accreditation from both sheriffs and physicians throughout Virginia. The Committee members are encouraging others throughout the state to participate in the AMA program and the Society itself is continuing to cooperate with the Association to provide survey physicians for jails interested in participating in the program.

A most important point emphasized by the Committee and exemplified by the activities in Fairfax and Virginia Beach is that AMA accreditation was achieved without federal funds, state funds, private, corporate or government grants, or financial assistance from the field of correctional medicine. Accreditation of both jails was achieved without additional cost to Medical Society of Virginia members and without addition of new staff members by the Society. The standards were adhered to and accreditation achieved by cooperation among the administrative staff of the Medical Society of Virginia, the Society's membership, the American Medical Association and the Virginia Sheriff's Association. Thus another costly "seed money" activity was avoided, but the basic medical standards were still adhered to.

**Recommendation**

**That any correctional institution in the state of Virginia pursue compliance with the AMA health care standards for correctional institutions but do so in concordance with the House of Delegates' resolution and the examples set by the two correctional institutions mentioned above in order to avoid unnecessary costs while at the same time insuring access to high-quality health care for jail inmates and at the same time avoiding unnecessary medical malpractice liability by improving the health care systems which serve Virginia's correctional institutions. Committee members are available for consultation in these areas.**

**Richard E. Easton, MD,**
Chairman

## Sports Medicine

The Committee continued successful liaison with the Virginia High School League by presenting a two-hour program of sports medicine on July 23, 1981, at Virginia Tech to the annual Virginia High School League Coaches' Clinic. Representing The Medical Virginia High Society of Virginia by presentations were Louis Ripley, MD, Dick Fisher, MD, Jay Hopkins, MD, and Dick Bullock, MD.

Further discussion was held with the Virginia Athletic Trainers Association. They have expressed a desire to have voluntary registration of athletic trainers by The Medical Society of Virginia. Such a program would be completely funded by registration fees from the Trainers Association. Anticipated registration is 200. Society staff indicates the Society is capable of administering the registration process.

**The Sports Medicine Committee recommends that voluntary registration of the athletic trainers be undertaken by The Medical Society of Virginia.**

The basic concepts of such registration include:

1. Two categories of registration equivalent to the National Athletic Trainers Association certification criteria.

2. Recommendations made by the Virginia Trainers Association to the Society's Sports Medicine Committee for final approval and certification.

3. All costs to be borne by registration fees.

4. Specific rules of ethics to be determined by the Society.

5. The Society takes no responsibility for collective or individual actions by members of the Virginia Athletic Trainers Association.

6. The Society has final control of granting or rescinding registration.

The benefits to the Society of such a program include:

1. Enhanced relationship with Virginia school systems, with anticipated improvement of school athletic health programs. This positive action is expected to present a positive public relations image of the Society.

2. Opportunity to mold a satisfactory position for athletic trainers in the health care system with Society guidance.

The Virginia Orthopaedic Society endorsed the concept of such registration at its 1981 annual meeting and communicated this action to the Society.

On the issue of a Governor's Council for Physical Fitness, the Sports Medicine Committee recommends no action at this time.

**Robert P. Nirschl, MD,**
Chairman

## Vanguard

This annual report to the Society comes from a committee of somewhat different complexion than that of four years ago. As anticipated in the 1980 report, we have this year been able to deal vastly less with ramifications of the health planning laws, thanks to the immense contribution of physicians throughout the state. With the markedly curtailed need for outside consultant services, our fiscal requirements have plummeted, and we have successfully moved much of our support requirements to the Society's headquarters. The loss of our executive secretary in May has prevented a more complete transfer of support activities to Dover Road.

Persuant to House approval of the Vanguard Committee's supplemental recommendations last November, three resolutions were forwarded to the AMA by the Virginia delegation. Two, bearing on placement of Health Service Corps physicians and on FTC jurisdiction of the medical profession, have subsequently borne fruit. The third, regarding "pro-competition" proposals in the Congress, has been the subject of intense and prolonged study by the Committee and will doubtless be the source of subsequent recommendations to the House. This concept is propelled by the powerful inertia of endorsement by the current administration, by prominent cabinet members and by influential members of Congress but is a dangerous proposal in its present form. The strength of the forces behind it, however, ensure the continued presence of this approach to health care financing and government control for some time to come. The Committee will continue working on this issue and will endeavor to inform the Society more fully in the coming weeks.

The Committee has endeavored to keep abreast of other major federal legislative matters through the year and again anticipates the submission of a supplemental report to the House containing specific recommendations for action.

It cannot be deduced that an administration and Congress, however more inclined to concur with the thinking of the medical profession, can wreak no mischief in their tenure. It behooves the Society, therefore, by charge and by precept, to continue to be carefully vigilant and in the vanguard of the profession in protecting the quality of medical care in the commonwealth and the nation. With the continued support of the Society's membership, I am sure this will be the case.

**H.C. Kuykendall, MD**
Chairman

## Virginia Medical

A lot of nice things happened to VIRGINIA MEDICAL in the year past.

It won first prize for excellence of design and editorial content in the annual Sandoz Medical Journalism Awards competition, repeating the blue ribbon won in the same contest in 1977. A bronze plaque and a check for $500, trophies of the award, are to be presented at the annual meeting in Norfolk this month.

It drew national media coverage with the May issue, which featured two articles related to smoking cessation. One was a "Guide to Stop Smoking", a directory of resources available in Virginia to help persons stop smoking; the other was a discussion by Dr. John J. Witte of the Centers for Disease Control of the high rate of cigarette smoking in American youth. Reports of the issue were carried by *American Medical News* and *Medical World News*, both accompanied by pictures of the May cover with its unmistakable VIRGINIA MEDICAL logo. Many Virginia newspapers and television stations also carried reports of the issue. These stories generated a wave of letters from near and far, but the Editors liked best the letters from Medical Society of Virginia members applauding the journal's anti-smoking stance. Equally gratifying were the many requests for reprints of the "Guide"; by late August 9,820 of these reprints had been sent to MSV members for distribution to their patients.

Something nice happened to VIRGINIA MEDICAL's advertising, too. Although the national advertising solicited by the State Medical Journal Advertising Bureau was down fractionally, the local advertising, which is solicited in Virginia by the journal staff, rose by a healthy 10.8%. The table gives the figures.

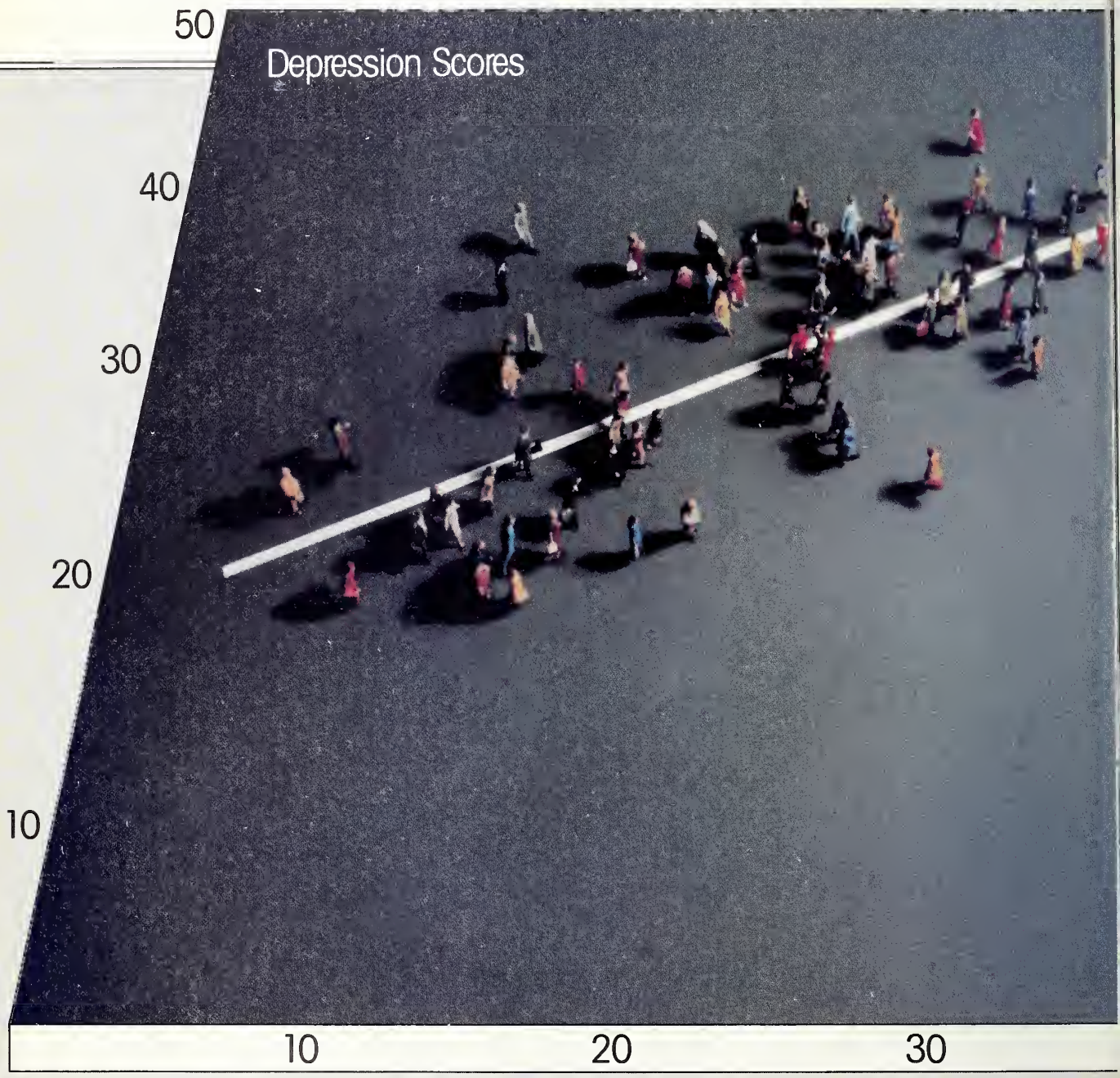
**Virginia Medical Advertising by Pages.**

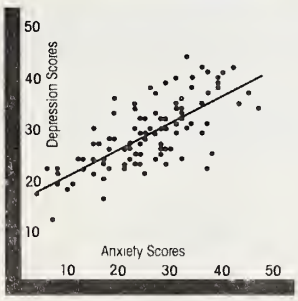
| | Local | National |
|---|---|---|
| Oct '79-Sept '80 | 119½ | 237 |
| Oct '80-Sept '81 | 129½ | 235¼ |
| | +10 | −1¾ |

But the nicest thing that happened to VIRGINIA MEDICAL was the strong support of the many physicians who contributed medical articles, editorials and commentaries for publication. The Editors deeply appreciated these splendid works and printed them with great pride.

**W. T. Thompson, Jr., MD,**
Editor

# FOR THE 7 OF 10 NONPSYCHOTIC




## Clear correlation between anxiety and depression[3]

The above graph illustrates a relationship between anxiety and depression, indicating that patients seldom present with anxiety or depression alone; more often they have both in varying degrees. Data based on a sampling of 100 outpatients (64 male; 36 female) seen at a general psychiatric clinic.

[3]Adapted from Claghorn, J. The anxiety-depression syndrome. *Psychosomatics 11*:438-441, Sept-Oct 1970.

# NEW MEMBERS

*Arlington County Medical Society*

**Carlos H. Espinel, MD,** Internal Medicine/Nephrology, 1605 35th Street, NW, Washington DC 20007

**William D. Goldman, MD,** Pediatrics, 3240 Patterson Street, NW, Washington DC 20015

*Augusta County Medical Society*

**Ronald A. Fischer, MD,** Otorhinolaryngology, 365 S. Linden Avenue, Waynesboro VA 22980

*Fairfax County Medical Society*

**David Harvan, MD,** Ophthalmology, 6828 Commerce Street, Springfield VA 22150

**Barbara Ann Hasko, MD,** Internal Medicine, 9604 Lindenbrook Street, Fairfax VA 22031

**Daniel E. Keim, MD,** Pediatrics/Infectious Diseaes, 8318 Arlington Blvd., Fairfax VA 22031

**Shelly L. Kerman, MD,** Pathology, 11091 Main Street, Fairfax VA 22030

**Stanka Kukich, MD,** Internal Medicine, 200 Little Falls Street, Falls Church VA 22046

*Fredericksburg Area Medical Society*

**Desiderio L. Hebron, Jr., MD,** General Practice, 18 Pointers Ridge, Fredericksburg VA 22405

*Norfolk Academy of Medicine*

**Irvin L. Posner, MD,** Ophthalmology, 210 DePaul Medical Bldg., Norfolk VA 23505

*Northampton County Medical Society*

**Courtland J. Hall, MD,** Anesthesiology, #1 Chesawadox Drive, Jamesville VA 23398

*Northern Virginia Medical Society*

**Stepher A. Fischer, MD,** Emergency Room Physician, Route 2, Box 53-A, Woodstock VA 22664

**Thomas R. Himes, MD,** Pathology, 126 W. Cork Street, Winchester VA 22601

*Richmond Academy of Medicine*

**Scott B. Anthony, MD,** Orthopedic Surgery, MCV Station, Box 515, Richmond VA 23298

**Dwight P. Cruikshank, MD,** Obstetrics and Gynecology, Medical College of Virginia, Richmond VA 23298

**Robert D. Lovinger, MD,** Pediatric Endocrinology, 6716 Patterson Avenue, Richmond VA 23226

*Southwestern Virginia Medical Society*

**David W. Abse, MD,** Psychiatry, St. Albans Hospital, Radford VA 24141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VIRGINIA MEDICAL

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# Virginia's First Medical Air Ferry Flies Out of Salem

AIR POWER is coming to Virginia medicine. Governor Dalton himself is helping to usher it in. When, recently, Dalton was asked to approve the purchase of two more helicopters for the state police force, he said in effect, if you promise to coordinate them with the Emergency Medical System, you can have them. The promise was given, and the Governor signed the purchase order.

In Loudoun County, the helicopters of Virginia's park police already are integrated into the Emergency Medical System. In Virginia Beach, a fixed-wing plane is operating as an air ambulance. In Richmond, the Medical College of Virginia has laid out a heliport near its new hospital.

But the strongest signal of air power's new role in Virginia medicine comes from Southwestern Virginia, where the state's first full-fledged medical air transport service was established in February of this year and already is flourishing. It debuted with a 1980 Bell Jetranger III helicopter handsomely outfitted with life support equipment and expertly operated by a pilot who formerly flew army helicopters. Home base for the craft is a helipad at the Lewis-Gale medical complex in Salem, Virginia, but that in no way signifies that it is simply a shuttle for the Lewis-Gale Hospital; on the contrary, it serves hospitals all over the compass and has already flown patients to facilities in Washington, DC; Winston-Salem, North Carolina; Johnson City, Tennessee, and Norfolk. Within one hour's flight of the helipad live 3 million people; the terrain is mountainous, the communities widespread, but the helicopter meets these exigencies with speed and ease.

All the technology of emergency medical treatment today is carried by the craft, including heart monitoring equipment, and radio contact with emergency room doctors is maintained 24 hours a day, seven days a week. The pilot is a full-time employee. Paramedics trained in emergency techniques are on call to fly as needed, as are physicians and intensive care nurses.

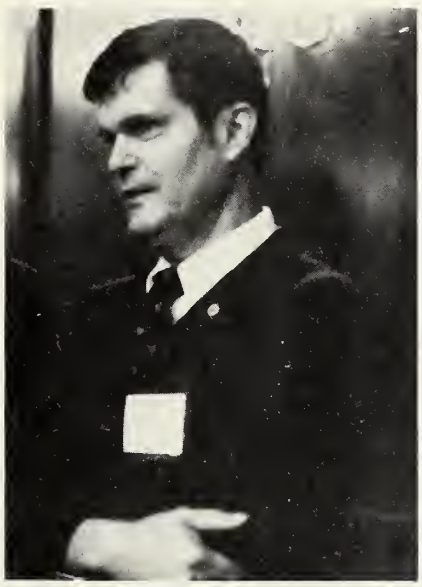
In the first seven months of the service's operation, the logbook showed a total of 75 patient transports. They testify to the helicopter's dramatic effect on the crucial factor of time in an medical emergency and its unique ability to rescue the acutely injured from remote settings. For instance:

- A 45-year-old patient in cardiac arrest with bilateral plumonary emboli who was resuscitated, then flown for life-saving surgery to the Medical College of Virginia Hospitals in Richmond.
- A man who suffered burns over 80% of his body in a brush fire was flown to the University of Virginia Burn Center.
- A doctor's wife who fractured her hip while skiing was air-lifted from the top of Snowshoe Mountain and transported to a hospital in her hometown of Roanoke.
- A 12-year-old male whose hand was almost amputated in a blasting accident was flown to the University of Virginia Medical Center for reimplantation.
- A pregnant woman who developed a bleeding placenta previa while at the Homestead was flown from a hospital in nearby Covington, where she had been stabilized, to her obstetrician's hospital in Norfolk.

A salient reason for the helicopter service's instant success, undoubtedly, is the fact that it was the bright idea of an orthopedic surgeon who knows what medical emergencies are all about. He is Dr. Richard H. Fisher of Salem, founder and president of Life-Guard of America, Inc., the corporation registered in Virginia to operate the service. Because Dr. Fisher is on the staff of Lewis-Gale Hospital, the hospital's administrators have given the emergency air service hearty moral support, but the venture is financed entirely by private investors.

As for the finances of paying for the service, air transport for emergencies is reimbursed by most third-party payers, usually at 80% of charges, and Dr. Fisher has worked out an unusual subscription plan available to corporations in the area. For instance, a cement company located far into the countryside enrolled its 400 employees at a prorated $1 per person per year, thus prepaying the helicopter ride to a hospital of any employee who suffers a life- or limb-threatening emergency will at work.

There are perhaps 30 helicopter medical emergency services in the United States, Dr. Fisher estimates, and he forecasts that they will multiply. Indeed, once the pioneer Salem service is self-sustaining, he intends to look into the feasibility of expanding Life-Guard of America into other locations.



**As this issue was being printed, the physician pictured above was being installed as President of The Medical Society of Virginia. He is Dr. H. C. Alexander, III, Roanoke, who succeeds Dr. Percy Wootton of Richmond. For VIRGINIA MEDICAL, "Chris" Alexander set down the major avenues of action he sees for the coming year; his forecast appears on pages 698-699 And on page 750 you will find a biographical portrait of the Society's 125th President.**

## Second Suit Seeking Millions Dismissed

A $12 million libel suit in which The Medical Society of Virginia was a defendant was dismissed in Fairfax Circuit Court last month on the basis of the statute of limitations. The action was brought by Dr. H. Barry Jacobs, Reston, Virginia, surgeon, who sought damages for alleged defamation of character and named as defendants not only The Medical Society of Virginia but the Fairfax County Medical Society and two of its officers.

Judge Richard Jamborsky's dismissal of the suit came after he had heard four and a half days of evidence. He cited the date of the letter in which the alleged dafamation occurred, March 1, 1979, and the date on which Dr. Jacobs filed his suit, May 12, 1980, and pointed out that the statute of limitations for defamation in Virginia is one year. Earlier in the year The Medical Society of Virginia's attorneys had asked for dismissal on precisely that basis; at that time the judge overruled the request but without prejudice, and when the attorneys raised the point again, at the trial, the judge agreed.

This was the second suit Dr. Ja-

# A Blueprint for a Community's Health: The New Stuart Circle Medical Building

Charter Medical Corporation proudly announces the opening of its Stuart Circle Medical Building on Richmond's historic Monument Avenue.

The new medical building offers physicians the opportunity to become an integral part of an active community. Located in the center of the beautiful Fan district, the newly renovated office building provides space for physicians to practice, either solo or in groups.

The office is within half a block of Stuart Circle Hospital, a 153-bed, short-term, medical/surgical hospital offering the convenience of outpatient testing for your patients. A 24-hour Outpatient Department and many other ancillary services are also available at the hospital.

Although renovated for modern-day patient/physician comfort, much of the townhouse-style flavor remains, including fireplaces and mantels in selected offices. The floor-plan design insures convenience and patient privacy in both the consultation and examination areas. The decor matches the traditional elegance of the surrounding historical homes.

Applications are now being accepted for office space. Interested physicians should call project manager Ray Hayes at (804) 359-1843.

**The Stuart Circle Medical Building**
1617 Monument Avenue
Richmond, Virginia

—A CHARTER MEDICAL CORPORATION FACILITY—

cobs had filed recently against The Medical Society of Virginia. In July 1980, after six days of trial, the Society and 15 codefendants, including the Fairfax and Prince William County Medical Societies, obtained a directed verdict dismissing a multimillion-dollar antitrust action brought by Dr. Jacobs. That suit was tried in Federal District Court in Alexandria. It alleged that the defendants, in response to Dr. Jacob's professional advertising, conspired to eliminate him as a practicing surgeon and injure him as a medical entrepreneur, causing him to lose memberships, privileges and malpractice insurance.

Dr. Jacobs served as his own attorney in both trials.

## Just the Ticket: Eight Days With a Princess

Early in March, when winter will have become a drag, a group of Medical Society of Virginia physicians, their spouses and friends will board the luxury cruise ship Pacific Princess for eight days of summer sun along the Mexican Riviera. It's the latest offering of the MSV travel program under the banner of Intrav®, the agency known for its classy travel packages. Beginning in the glamorous resort of Acapulco, the Princess will sail along the bays and beaches of this gorgeous coast, calling at Ixtapa, Puerto Vallarta, Mazatlan and Baja, while her passengers enjoy pampering service and deluxe cuisine. The tour departs by air from Washington, DC, and Richmond on March 6 and returns from the Los Angeles airport on March 13. The tab: $1456 plus air fare. For more information call Mrs. Margaret Brown at (804) 353-2721.

**Sweet Charity:** The largest proceeds in its 19-year history, $17,800, was racked up by the 1981 Antiques Show and Sale of the Richmond Academy of Medicine Auxiliary for distribution to philanthropic projects. Contributing glowingly to that success was the exhibit of Japanese Imari porcelain loaned by Dr. and Mrs. Leslie W. Rose, Jr., who are shown above on the right. With them is Mrs. Franklin P. Watkins. The 1982 show will be held February 18 to 21 at the Holiday Inn Convention Center on West Broad Street in Richmond under the leadership of Mrs. John G. Cametas, chairman, and Mrs. William L. Curry, president.

## Money-Back Offer at Radford Hospital

If patients at the Radford, Virginia, Community hospital don't like the dinner served to them, they can get their meal money back. This customer-is-always-right attitude, reported in a recent issue of *Medical World News,* is the basis of a "Guaranteed Services" program, in which Radford Community credits the accounts of patients with justifiable complaints. Specifics of the offer vary at the several hospitals around the country that are trying the program, but recompensable gripes may range from cold food to long waits in the emergency room.

In its one-year experience with the new approach, Radford Community has found it has improved both the morale and performance of employees. Their incentive: "We've set aside $10,000 a year for the program," says a hospital spokesman, "and what money isn't used will be divided up among the employees." The hospital has had to return only about $300 to patients since the plan started.

The plan is also being tried at hospitals in Ohio, Nevada, Florida, Massachusetts and Wisconsin.

# UP FRONT WITH THE PRESIDENT

As every football coach knows, an organized team needs a game plan to meet anticipated challenges and attain desired objectives. So it is with The Medical Society of Virginia team of 6000+ members, and I here take an advance look at some major challenges that may confront us this year and the ways in which they can be met to gain ground for organized medicine in general and each MSV member in particular.

First, to strengthen our team, a vigorous effort will be launched this year to expand both Medical Society of Virginia and American Medical Association membership. Under the leadership of Dr. Charles H. Crowder, Jr., the Membership Committee will focus on recruiting residents from housestaffs over the state. The drive will be joined by VaMPAC, to bring in more VaMPAC members, too. An increase in AMA membership is vital so that we can enlarge our representation and voice in the AMA and thus more fully use its national influence and organization to benefit Virginia physicians and further their interests.

Specialty representation in our House of Delegates has been a subject of discussion for several years, and as this issue of Virginia Medical is being printed, the Bylaws Committee under the chairmanship of Dr. Charles M. Caravati, Jr., is presenting to the House of Delegates a plan recommending specialty representation of that body. Whether it is passed or not, emphasis will be given this year to increased cooperation with Virginia's specialty groups. For one thing, there will be a meeting with specialty society officers to delineate to them the benefits and services the MSV structure provides, such as lobbying for legislation, and to encourage them to hold their meetings in conjunction with our annual meetings and participate in our scientific programs.

**"Who is a doctor and who a paramedic?"**

**"Improved communications is the goal."**

Improving communications within our team is the goal of a resolution that was prepared by the Halifax Medical Society for presentation to the House at the annual meeting. It recommends the adoption of a "commission system", an idea originated by Dr. William J. Hagood, Jr., when he was MSV President in 1978-1979. Basically, the commission system simply means that the information generated by our committees would be channelled to our councilors, not only to keep the Council apprised of what the committees are doing but to give it the opportunity to develop this information into action when appropriate. Such a "pipeline" could tighten our teamwork and make the MSV team more quickly and efficiently responsive to problems as they arise.

The coming year will see a continuation of the efforts initiated by my predecessor, President Percy Wootton, to establish an effective cost-containment program of health planning in Virginia. To be explored further are the alternative avenues of a voluntary planning commission made up of interested parties or a cooperative plan within the Virginia Department of Health. The Richmond Academy is bringing to the House of Delegates a program that would establish close communication with leaders of Virginia's industry so that joint study could be made of the impact of mounting medical care costs on the economics of industrial production.

Stronger communication between The Medical Society of Virginia and the State Board of Medicine is the goal of a resolution being submitted to the House by the

Danville-Pittsylvania Academy of Medicine. If the House approves it, a subcommittee to our Legislative Committee will come into being and function as liaison with the Board's Legislative Committee. Thus the legislative programs of both organizations could be jointly reviewed. A specific goal is an exchange of ideas regarding the distressing confusion that exists about who is a physician and who is a paramedic. To protect the patient, clarification is needed of the many activities of a variety of health care deliverers.

Also in the coming year new concepts of physician accountability will be addressed, the role of the physician in society today will be reviewed, and the sociocentric approach, with its emphasis on enhanced value of services and quality of care, will be presented as the philosophical guide for our profession in this and future years.

Guided by the actions of our "coaching staff," the House of Delegates and the Council, I hope to help promote reasonable progress in these areas in the coming year and will also be on the alert to help meet the unexpected problems that invariably appear.

Now that you've heard what concerns me, I hope you will let me hear what concerns you. After all, I'm here to serve you, and in order to do that, I need to know what you think needs attention. On this page is a form expressly designed so that you can quickly and easily register your chief concerns. Won't you please fill it out and put it in the mail to me? I will be delighted to hear from you.

**H. C. Alexander, III, MD,**
President 1981-1982,
The Medical Society of Virginia

## "I need to know what concerns you."

# MEMO

**To: H. C. Alexander, III, MD, President**
**The Medical Society of Virginia**
**4205 Dover Road, Richmond VA 23221**

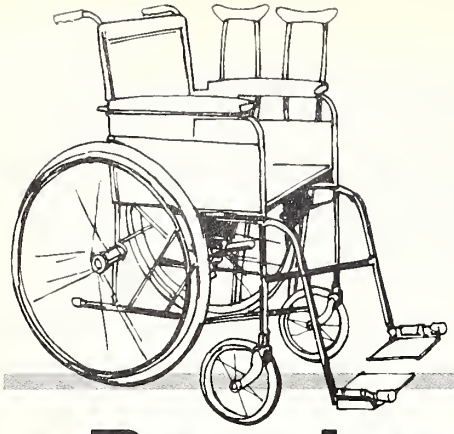
**From:**

**These are the three things that concern me most in my practice today:**

**1.**

**2.**

**3.**



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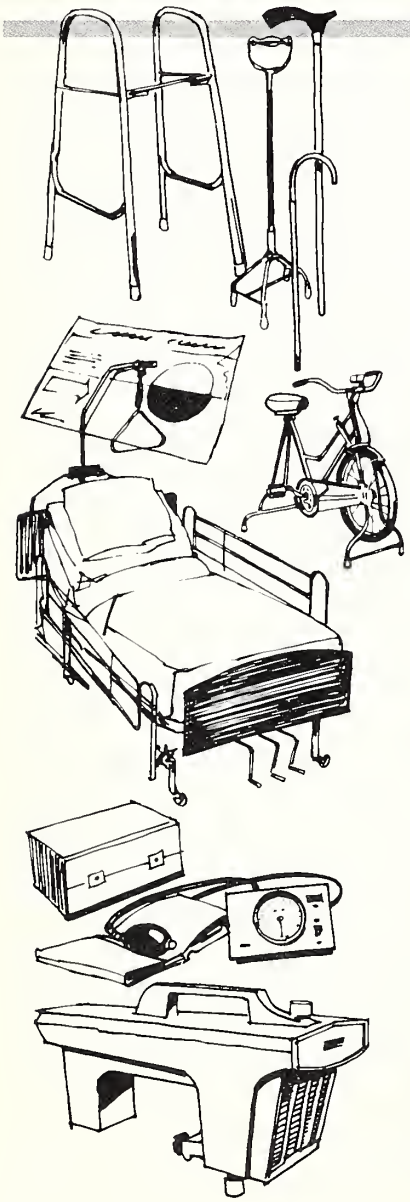

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# LETTERS

## May Issue Prompts Stop Smoking Campaign

We in the Medical Department of Fidelity Bankers Life Insurance Company wish to let you know how much we appreciated the Stop Smoking Guide in the May 1981 issue of VIRGINIA MEDICAL.[1] In fact, we were so impressed with it that we were inspired to organize a smoking education campaign for our employees and designated July as "Helping Smokers Who Want to Kick the Habit Month." Your colorful Guide was the centerpiece of our effort. Our vice president and medical director, Alan Hecht, MD, ordered reprints of it for us, and we made them available to all of our employees. We also ordered from the American Cancer Society and the Virginia Lung Association the anti-smoking literature recommended in the Guide; with it came some striking posters which we put up throughout our offices. In addition, we publicized our stop smoking campaign in the June and July issues of our company newsletter, the *Acorn*.

We have 192 employees, of which about 30% are smokers, Dr. Hecht estimates, so we thought the reponse was very good—25 persons came by the Medical Department to pick up the reprint of the Guide and the other literature we had assembled.

Thank you again for a most helpful publication.

Mary Ellen Young

Fidelity Bankers Life Building
Ninth and Main Streets
Richmond VA 23219

1. Gray A: A guide to stop smoking. Va Med 108:313-317, 1981

## Physicians Needed to Determine Disability

Disability Determination Services of the Virginia Department of Rehabilitative Services is in urgent need of physicians in Southwest Virginia to perform consultative examinations on Social Security disability applicants. Physicians are especially needed in cities and surrounding counties of the Bristol, Norton and Bluefield areas.

We can use all types of specialties; however, the most pressing needs are for evaluations of cardiovascular, respiratory and arthritic impairments. The examinations are usually done by internists and family physicians who have equipment or access to facilities capable of performing electrocardiograms, treadmill exercise testing, pulmonary function studies, arterial blood gas determinations, routine blood and urine analyses, and chest and other x-rays.

Fee schedules are established by the Medical Advisory Committee of the Department of Rehabilitative Services and are in line with charges made by the majority of physicians and facilities in the state.

Interested physicians should contact the Disability Determination Services' Southwestern Regional Office in Roanoke, (703) 774-0011, Dr. Obenschain, Extension 244 or Mr. Flippo, Extension 267.

Our agency has always depended upon the excellent services of the medical community. You, the physician, are vital to the success of the Disability Determination Services program. Your continued help and cooperation will enable us to provide fair and timely decisions for the disabled individuals in your community.

**David C. Williams, MD**

Chief Medical Consultant
Disability Determination Services
4900 Fitzhugh Avenue, Richmond VA 23230

## Calls for End to Mandatory Nursing Home Visits

In 1965, with the introduction of health insurance for the aged, Section 1801 of Title XVIII, Health Insurance for the Aged, read as follows:

*Nothing in this title shall be construed to authorize any federal officer to exercise any supervision or control over the practice of medicine or the manner in which medical services are provided, or over the selection, tenure, or compensation of any officer or employee of any institution, agency or person providing health services; or to exercise any supervision or control over the administration or operation of any such institution, agency or person.*

Federal law demands, however, that the Medi-

care patient in skilled care must be seen every 30 days and Medicaid patients, even on intermediate or domiciliary care, must be seen every 60 days, whether or not this visitation is medically indicated. Letters received by attending physicians from nursing home administrators emphasize the federal and state legal requirements and the penalties for failure to conform to their mandates.

Obviously, these stringent regulations have caused a great deal of opposition among physicians in general. We are not accustomed to such unwarranted discipline in the practice of medicine. The patient and the nursing home are being held hostage by the federal and state bureaucracy. This is in direct violation of the intent of the opening statement of Title XVIII as noted. This is destroying the independent structure of medicine. It should be recalled that Lenin once said that "after the destruction of the independent structure of medicine, the nationalization of the rest of the people is easy."

It is obvious that the state or federal government has no business telling a doctor when to see his private patient. The practice of medicine has become less of a privilege and more of an obligation than was ever intended.

We have good nursing homes in Richmond, staffed by competent nurses. They are aware when a patient needs a doctor, perhaps more so than the average family in the private home. Obviously, we do not have a perfect society. Mistakes occur, but on the whole our patients are well served. Furthermore, the Virginia Office of Aging has an effective ombudsman program whereby any patient or family may call 1-800-553-3402 and register a complaint.

We contend that mandatory visits by a physician should be terminated. This would save millions of dollars for Virginians and billions of dollars for the nation's taxpayers. Such a waste of taxpayer money and physician time and effort has seldom been inflicted on the taxpayer and the medical profession. The current system shows a lack of trust in the physicians and nurses engaged in the care of nursing home patients and a total disregard for the costs involved. We believe that the bureaucracy should stop practicing medicine and leave that to the professionals. We have the finest medical care in the world, and we want to keep it that way without government interference.

**John P. Lynch, MD**
7702 Parham Road, Richmond VA 23229

**Editors' Note:** Dr. Lynch is a member of The Medical Society of Virginia's Committee on Aging.

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Saint Albans Psychiatric Hospital

*Radford, Virginia 703-639-2481*

# MEETINGS ABOUT MEDICINE

**November 14**
**Second Saturday Symposium—Ophthalmology** (Eastern Virginia Medical School), *Norfolk*. Hour-for-hour credits. Robert L. Cassidy, MD, EVMS, PO Box 1980, Norfolk VA 23501. (804) 446-5268.

**November 19-20**
**Critical Issues in Health Law** (American Society of Law and Medicine), *Washington DC*. Fee, $180, members; $200, non-members. A. Edward Doudeara, JD, 520 Commonwealth Ave., Boston MA 02215, (617) 262-4992.

**November 20-21**
**Progress in Pediatrics 1981** (Johns Hopkins School of Medicine). *Baltimore*. 11 credit hrs. Fee $75. Program Coordinator, Turner 19, 720 Rutland Ave., Baltimore MD 21205, (301) 955-3168.

**December 3-4**
**Advances in Obstetrics and Gynecology** (Medical College of Virginia), *Richmond*. 9½ hrs. Cat. 1. Erma Blanchard, (804) 786-0494.

**December 4**
**R. Carl Bunts Memorial Lectureship in Urology** (Medical College of Virginia, *Richmond*. 6 hrs. Cat. 1. Erma Blanchard, (804) 786-0494

**December 4-6**
**Drug Management of Childhood Behavior Disorders** (University of North Carolina), *Chapel Hill, North Carolina*. 16 hrs. Cat. 1. Office of Continuing Education, (919) 962-2118.

**December 4-6**
**Neurologic Problems of Infancy and Childhood** (Eastern Virginia Medical School and University of Virginia School of Medicine), *Williamsburg*. Ann Raynor, EVMS, PO Box 1980, Norfolk VA 23501, (804) 446-5940.

**December 6-9**
**Coronary, Hypertensive, Valvular and Myocardial Heart Diseases: The Multidisciplinary Approach** (American College of Cardiology), *Williamsburg*. Mary Anne McInerny, 9111 Old Georgetown Rd., Bethesda MD 20014, (301) 897-5400.

**December 11-12**
**Symposium in Ob-Gyn-Perinatology, Endocrinology and Oncology** (University of Maryland), *Baltimore*. Betty Saar, Room 300, MSTF, 10 S. Pine St., Baltimore MD 21201, (301) 528-3956.

**December 12**
**Second Saturday Symposium: Obstetrics and Gynecology** (Eastern Virginia Medical School), *Norfolk*. Robert L. Cassidy, MD, EVMS, PO Box 1980, Norfolk VA 23501, (804) 446-5268.

**December 14-18**
**Advanced Practicum: Ultrasound** (Johns Hopkins School of Medicine), *Baltimore*. Fee, $400. Joan Batt, Dept. of Radiology, Johns Hopkins Hospital, Baltimore MD 21205, (301) 955-8450.

**November 15-18**
**74th Annual Assembly** (Southern Medical Association), *New Orleans*. AMA Dept. of Meeting Services, 535 N. Dearborn St., Chicago IL 60610, (312) 751-6503.

**December 18-19**
**The Primary Care Physician and Peripheral Vascular Disease** (University of Kentucky), *Lexington, Kentucky*. Frank R. Lemon, MD, College of Medicine, Lexington KY 40536-0084, (606) 233-5161.

**January 14-16**
**Update 1982—Management of Asthma and COPD** (American College of Chest Physicians), *St. Petersburg, Florida*. 17 credit hrs. Fee: Members, $200; non-member MDs, $150. Dale E. Braddy, AMCP, 911 Busse Highway, Park Ridge IL 60068, (312) 698-2200.

**January 23-30**
**Infectious Disease in Clinical Practice** (University of California at San Francisco), *Snowmass at Aspen, Colorado*. 21 credit hrs. Fee, $275. University of California School of Medicine, Extended Programs in Medical Education, Room 569-U, San Francisco CA 94143, (415) 666-4251.

**January 25-27**
**Annual Postgraduate Course of the American Diabetes Association,** *Orlando, Florida*. ADA, 2 Park Ave., New York NY 10016.

# LEARNING EXPERIENCES

A rare learning experience was offered to members of the Virginia Orthopaedic Society recently when Sir John Charnley of hip replacement fame came to their annual meeting in Williamsburg as the featured speaker. He stayed through all three days of the meeting, speaking each day, and by the time he returned to England the orthopedists had heard from the master himself how he developed his landmark procedure, the details of his surgical technique, and the long-term results he has documented.

Then there was the exhilarating opportunity, at dinner in the evening, to meet and talk with Sir John, who is emeritus professor of orthopedic surgery at the University of Manchester and director of research at the Centre for Hip Surgery in Wrightington.

Although the renowned Britisher was the centerpiece of the meeting, there was hearty scientific fare in the 28 papers presented by the Virginia orthopedists; several papers related to experience in Virginia with the Charnley operation.

Dr. Joseph O. Romness, Arlington, was president of the Society at the time of the meeting, and Dr. Frank A. Petrone, Arlington, was program chairman. The current president is Dr. Terry O. Miller, Lynchburg.

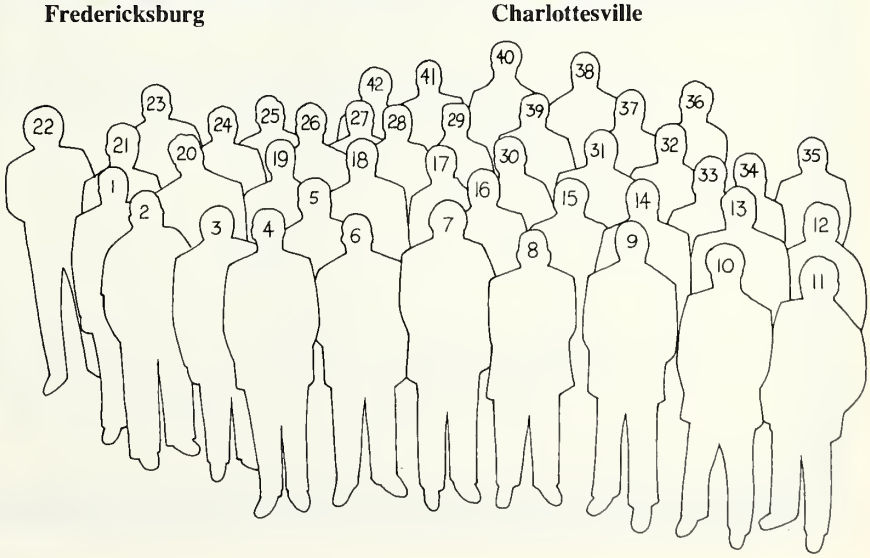
Some of the 200 Virginia orthopedists who attended the meeting are shown below in a picture taken after the first day's session.

1. J. Leo Crosier, MD, Petersburg
2. William C. Lithgow, MD, Colonial Heights

3. James H. Masterson, MD, Alexandria
4. Curtis V. Spear, Jr., MD, Norfolk
5. Donald S. Howell, MD, Suffolk
6. H. George White, Jr., MD Winchester
7. Dr. Miller
8. Sir John
9. Dr. Romness
10. Dr. Pettrone
11. Gwo-Jaw Wang, MD, Charlottesville
12. Frank G. Burns, Jr., MD, Virginia Beach

Dr. Romness, left, and Sir John look over the program.

13. Bruce Butler, Jr., MD, Alexandria
14. Gervas S. Taylor, Jr., MD, Norfolk
15. Richard H. Fisher, MD, Salem
16. Ernest J. Keffer, Jr., MD, Roanoke
17. Robert W. Waddell, MD Virginia Beach
18. William N. Deyerle, MD, Richmond
19. Thomas J. Schulz, MD, Winchester
20. Franklin P. Watkins, MD, Richmond
21. William T. Johnstone, MD, Richmond
22. Arthur D. Greene, MD, Hampton
23. Stephen R. Shaffer, MD Falls Church
24. Douglas O. Powell, MD, Newport News
25. Richard L. Gaertner, MD, Vienna
26. F. Baldwin Harrington, Jr., MD, Fredericksburg
27. David V. Strider, MD, Charlottesville
28. Robert M. White, MD, Arlington
29. Leo B. VanHerpe, MD, Arlington
30. Forrest M. Swisher, MD Alexandria
31. John S. Thiemeyer, Jr., MD, Norfolk
32. Ira M. Cantin, MD, Norfolk
33. James B. Jones, MD, Lynchburg
34. Sukru Vanichkachorn, MD, South Hill
35. Herman M. Nachman, MD, Richmond
36. E. Frederick Barrick, MD, Vienna
37. H. Rolf Noer, MD, Arlington
38. Joseph L. Platt, MD, Lynchburg
39. John E. Traynham, III, MD, Hampton
40. H. Davis Von Oesen, MD, Lynchburg
41. Harry S. Holcomb, III, MD, Nassawadox
42. Michael J. Kovac, Jr., MD, Charlottesville



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# NEW MEMBERS

*Albemarle County Medical Society*

**Leigh G. Donowitz, MD**, Pediatrics, Box 386, University of Virginia Medical Center, Charlottesville VA 22908

**James R. Hilliard, MD,** Psychiatry, Box 378, University of Virginia Medical Center, Charlottesville VA 22908

**Mary C. Shemo, MD,** Psychiatry, 1440 Pinedale Rd., Charlottesville VA 22901

*Alexandria Medical Society*

**Vito A. Giannuzzi, MD,** Pediatrics, 1451 Belle Haven Rd., Alexandria VA 22307

**Cleveland Francis, Jr., MD,** Cardiology, 8101 Hinson Farm Rd., Alexandria VA 22306

*Arlington County Medical Society*

**Harvey W. Austin, MD,** Plastic Surgery, 1800 Old Meadow Rd., McLean VA 22102

**John J. Elliott, MD,** Ob/Gyn, 3801 N. Fairfax Dr., Arlington VA 22203

**Paul R. Feldman, MD,** Ob/Gyn, 3800 N. Fairfax Dr., Arlington VA 22203

**Jane C. Hoyme, MD,** Internal Medicine, 1705 N. Taylor St., Arlington VA 22207

*Danville-Pittsylvania Academy of Medicine*

**Marvin Guter, MD,** Radiology, Box 2025, Danville VA 24541

*Fairfax County Medical Society*

**Richard A. Anderson, MD,** General Practice, 6723 Whittier Ave., McLean VA 22101

*Fredericksburg Area Medical Society*

**John D. Lucey, MD,** Orthopedic Surgery, 1616 Princess Anne St., Fredericksburg VA 22401

*Hampton Medical Society*

**Manuel Galdos, MD,** Ob/Gyn, 4000 W. Mercury Blvd., Hampton VA 23666

**Dennis Lee Napier, MD,** Ob/Gyn, 467-A Denbigh Blvd., Newport News VA 23602

*Loudoun County Medical Society*

**Donna L. Schuster, MD,** Allergy/Immunology, 135 Leesburg Pike, Sterling VA 22170

**Amy L. Tankoos, MD,** Neurology, 28 W. Market St., Leesburg VA 22075

*Lynchburg Academy of Medicine*

**John W. Campbell, MD,** General Practice, PO Box 120, Brookneal VA 24528

**Philip T. Drew, MD,** Family Practice, Drawer 8, Evington Medical Center, Evington VA 24550

*Northern Virginia Medical Society*

**Max E. Wingerd,** MD, General Surgery, 315 W. 10th St., Front Royal VA 22630

*Mid-Tidewater Medical Society*

**Wendell T. Poulsen, Jr., MD,** Family Practice, Box 203, Saluda VA 23149

*Norfolk Academy of Medicine*

**Sanjay M. Amin, MD,** Pediatrics, 1401 Tidwater Dr., Norfolk VA 23504

**Henry W. Clapp, Jr., MD,** Anesthesiology, 404 Medical Tower, Norfolk VA 23507

**Marc H. Glickman, MD,** General Surgery, 844 Kempsville Rd., Norfolk VA 23502

**Jonathan S. Jacobs, MD,** Plastic Surgery, 400 W. Brambleton Ave., Norfolk VA 23510

**Meera K. Palat, MD,** Pediatrics, 5336 Powhatan Ave., Norfolk VA 23508

**Granville B. Work, III, MD,** Anesthesiology, 404 Medical Tower, Norfolk VA 23507

*Prince William County Medical Society*

**Mark S. Mason, MD,** General Practice, 8723 Digges Rd., Manassas VA 22110

*Richmond Academy of Medicine*

**Clifton C. Hickman, MD,** Otolaryngology, 5500 Monument Ave., Richmond VA 23226

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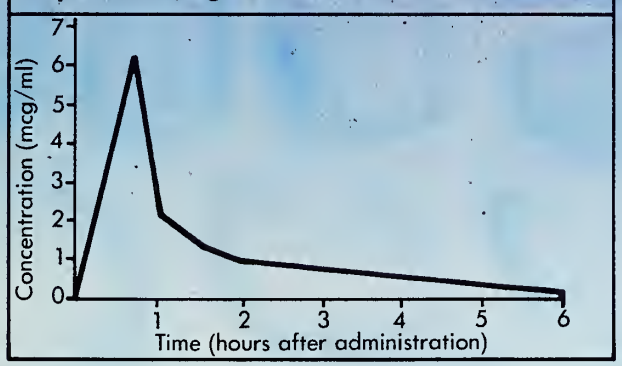


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VIRGINIA MEDICAL
NOVEMBER 1981

# Treatment of Tic Douloureux: Current Concepts

Harold F. Young, MD, and Donald P. Becker, MD,
*Richmond, Virginia*

When the excruciating pain of tic douloureux is relieved only temporarily by medication, surgery may be indicated. The authors describe posterior fossa neurovascular decompression, which preserves the normal function of the trigemial nerve, and report three cases that yielded good results.

TIC DOULOUREUX is a disorder characterized by severe facial pain of central origin which most often afflicts the elderly but may also be part of the symptom complex of multiple sclerosis in younger people.

Dr. Walter Dandy, in 1934, first suggested that arterial compression and distortion of the trigeminal nerve (cranial nerve V) at its point of entry into the pons might be an etiological factor in tic douloureux.[1] In Dandy's cases, the distortion of the nerve root was most commonly caused by a tortuous and elongated superior cerebellar artery or one of its branches. Dr. Peter Jannetta has reported a series of patients with tic douloureux, all of whom had mild to severe distortion and compression of the trigeminal nerve at its entry into the brain stem (root entry zone) by one or more tortuous arteries, usually branches of the superior cerebellar artery.[2,3] The observations of these neurosurgeons have given impetus to surgical treatment of tic douloureux by posterior fossa neurovascular decompression of the trigeminal nerve. A recent autopsy report by Dr. Jannetta and his associates of a nonoperated patient with tic douloureux has given further credence to the vascular compression etiology in this condition.[4]

There are obvious advantages to this approach as it may provide correction of the disorder without producing compromise of trigeminal nerve function. It will be necessary, however, to document the long-term followup of those patients treated by neurovascular decompression of the trigeminal nerve to prove that this procedure is an effective treatment of tic douloureux. In this communication, we report the three-year followup of the three patients with tic douloureux who underwent neurovascular decompression of the trigeminal nerve in 1977-78 at the Medical College of Virginia, and who remain free of pain as this is written, more than three years followup. These are the only patients who underwent retromastoid craniectomy for tic douloureux at the Medical College of Virginia in 1977-78. Two other patients with atypical facial pain

From the Division of Neurosurgery, Department of Surgery, Medical College of Virginia/Virginia Commonwealth University. Address correspondence to Dr. Young at Box 631, MCV Station, Richmond VA 23298.

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underwent retromastoid craniectomy for neurovascular decompression but no vessel was found compressing the trigeminal nerve; in these two patients the trigeminal nerve was partially sectioned with good pain relief but with associated analgesia of the face.

## Case Reports

*Case 1.* The patient, a 63-year-old male, was admitted to MCV on 10-18-77 with an eight-year history of right $V_1$, $V_2$, $V_3$ tic douloureux with a trigger zone at the right corner of his mouth. Initially, diphenylhydantoin (Dilantin®) and then carbamazepine (Tegretol®) afforded relief, but at the time of admission these drugs were no longer effective, even with the addition of diazepam (Valium®). Prior to admission he had multiple local injections by oral surgeons and had a radiofrequency rhizotomy at another hospital in 1974. He had received a deep alcohol injection of $V_3$ as well. None of these procedures afforded lasting relief.

The neurological examination was normal except for slight hypalgesia of $V_1$ and $V^2$ in the right side. Following a normal computerized tomogram of the brain (CT scan), he underwent a right retromastoid craniectomy, and the right superior cerebellar artery was seen to be compressing and distorting the 5th cranial nerve. This vessel was dissected free from the root entry zone of the right 5th cranial nerve by magnification techniques. His postoperative course was uneventful, and he was discharged home on 10-29-77. He remained pain-free with unchanged facial sensation three years later.

*Case 2.* This patient, a 70-year-old female, was admitted to MCV Hospital on 11-26-77 with a 14-month history of right $V_1$, $V_2$ paroxysmal pain aggravated by chewing or talking. She had been meticulously followed and cared for by a neurologist who was unable to fully control the pain on Dilantin and Tegretol as the patient became toxic on the usual dosages of these medications. She had been evaluated for bilateral decreased hearing and had a normal CT scan as well. The neurological examination was otherwise normal. She underwent right retromastoid craniectomy with removal of an arteriosclerotic superior cerebellar artery from the root entry zone of the right 5th cranial nerve using magnification operative techniques. She had mild cerebellar ataxia and increased hearing loss in the immediate postoperative period, but these symptoms resolved and she was discharged home on 12-8-77. She remained pain-free three years later with intact facial sensation.

*Case 3.* The patient, a 78-year-old male, was admitted to MCV Hospital on 3-13-78 with the chief complaint of left face pain since June 1976. The pain distribution was in the left $V_2$ and $V_3$ distribution, triggered by eating. A previous diagnosis of tic douloureux had been made. Dilantin and then Tegretol had initially relieved the pain but had to be discontinued because of decreasing platelet counts. The examination was normal for his age except for a very mild left peripheral facial palsy.

On 3-16-78 a left retromastoid craniectomy was done under general anesthesia. The superior cerebellar artery was found compressing and distorting the trigeminal nerve at the root entry zone. The vessel was removed from the nerve using magnification techniques. The 7th cranial nerve was normal. He remained pain-free with normal sensation of the face during the three-year followup period.

## Discussion

Before initiation of treatment of tic douloureux, one must be certain of the diagnosis. Tic douloureux is a chronic, intermittent, severe pain originating in the central nervous system and differentiated from other facial pains by the following criteria: 1) electric shock-like lancinating pain; 2) pain restricted to the trigeminal nerve distribution; 3) pain of sudden onset and abrupt termination; 4) pain-free intervals of minutes, days, weeks or longer; 5) unilateral pain during any single episode; 6) minimal trigeminal sensory loss; 7) pain triggered by nonnociceptive stimuli, usually from the ipsilateral anterior face. Unless these criteria are fulfilled in a patient presenting with facial pain, the diagnosis of tic douloureux cannot be substantiated and vascular compression of the trigeminal nerve is unlikely. Presently, there are no specific diagnostic aids, such as arteriography, to assure the presence or absence of vascular compression of the trigeminal nerve, so this history is all the more important. Yet, in all patients, CT scan is now recommended to rule out a tumor at or near cranial nerve V.

There are many causes of facial pain, such as dental pathology, tumors of the trigeminal nerve and plaques at the root entry zone of the trigeminal nerve in patients with multiple sclerosis. The most troublesome facial pain is atypical facial pain, which differs from trigeminal neuralgia in that it is more constant, without paroxysms, has no trigger point and is generally not confined to an anatomical division or divisions of the trigeminal nerve. Patients with atypical facial pain rarely have neurovascular compression as the etiology of their pain.

Over the years, many medications and operations have gained popularity in the treatment of tic douloureux. The pain is often at least initially or temporarily relieved by medication such as Dilantin in at least 20% of cases and Tegretol in two-thirds of cases.[5] These drugs, especially Tegretol, have limited use because of toxic side effects, including nausea, dizziness, hematosuppression, liver dysfunction and somnolence. A patient on Tegretol must remain under constant medical supervision. Often the medicine must be discontinued or dosage limited because of these side effects. Furthermore, tic pain in many patients may be refractory to the medication initially or after the passage of time.

When medications fail, temporary nerve blocks can be done, followed by peripheral nerve avulsions. Operations that have been performed for relief of tic pain include subtemporal extradural Gasserian ganglion and posterior root compression or decompression, partial or total middle fossa trigeminal nerve section, posterior fossa sensory root section, and trigeminal tractotomy.[6] Except for middle fossa decompression, the unifying feature of these operations is that they involve some permanent destruction (section of a nerve) of the nervous system, which may result in an unpleasant dysesthesia of the denervated face. The currently popular radiofrequency percutaneous Gasserian ganglion lesion first introduced by Kirschner in 1925[7] and reintroduced in the USA by Drs. Sweet and Wepsic[8], is safe and an easily performed procedure when done by a skilled surgeon.[6,8-11] Nevertheless, this procedure may also result in denervation and numbness of the face. Recurrence of pain has been reported[11] as have complications.[12] The procedures described above are designed to relieve pain but do not address themselves to the etiology of the pain of tic douloureux. The ideal treatment of tic pain would be to remove the irritating structure causing the pain while preserving facial sensation.

Posterior fossa neurovascular decompression is a surgical procedure designed to relieve the etiology of the pain by removing a vessel from the nerve, while preserving the normal function of the trigeminal nerve. This is of immense importance to the patient as anesthesia dolorosa is avoided and the corneal reflex is preserved in cases of first division trigeminal neuralgia. A small suboccipital craniectomy can be done safely with modern anesthetic techniques in elderly patients, and with the use of the operating microscope removal of the artery from the nerve is not difficult. In Dr. Ronald Apfelbaum's recent report,[11] 53 of 55 patients were rendered pain-free with an initial success rate of 96%. He also documented a very low complication rate, mainly involving transient palsies of adjacent cranial nerves, as occurred in our second patient.

## Summary

In summary, patients with tic douloureux should have a careful history taken, as well as physical and neurological examination performed to be certain of the diagnosis. The initial treatment should always be a medical regimen under careful observation. Patients who have recurrence of tic pain, or who do not obtain relief of the pain, should be considered for neurovascular decompression.[13] It is unnecessary for these unfortunate patients to suffer from this excruciating pain.

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# Recurrent Stenosis of the Endarterectomized Carotid Artery

Thomas R. Calhoun, MD, and Ivan K. Crosby, MD, *Charlottesville, Virginia*

CAROTID ENDARTERECTOMY has proven to be an extremely effective operation since its inception in 1953. Blood flow can be effectively restored in 98% of partially occluded internal carotid arteries, with a 95% long-term patency. Operative mortality ranges from 1% in patients with transient ischemic attacks to 6% in those with previous strokes. Transient or permanent postoperative neurologic deficits occur in 2-4%, and other complications occur in 4%. Indications for the operation have now been reasonably well defined, though there is still controversy over the "asymptomatic bruit."[1,2]

Recurrent stenosis of the endarterectomized carotid artery is an unusual but perplexing occurrence.

**Case Report**

A 65-year-old white male physician originally underwent staged bilateral carotid endarterectomies in late 1975 for transient ischemic attacks referable to the right carotid. His arteriograms at that time showed 70% narrowing on the right and 50% narrowing on the left.

The patient did well postoperatively, but in April 1976, he began to note left-hand clumsiness, alternating hemianopias, and left monocular blindness lasting several minutes. On readmission in July 1976, following a 30-minute episode of dysphasia, physical examination revealed a high-pitched, holosystolic right carotid bruit and a low-pitched left carotid bruit. Directional Doppler studies showed flow reversal in both supraorbital arteries. Arteriograms showed 95 percent stenosis of the previously endarterectomized segment on the left and 80% stenosis on the right. Resection of the left stenotic segment with saphenous vein replacement over an internal shunt was done. Pathologic examination showed severe intimal thickening by proliferating fibrous tissue.

The patient was readmitted three months later with visual blurring and multiple episodes of orthostatic hypotension, which was most likely due to at least partial obliteration, by his carotid operations, of the carotid sinus baroceptor response. An arteriogram showed no progression of the right stenosis and a patent graft on the left. Operation on the right was deferred due to fear of aggravating his orthostatic hypotension, a feeling that his neurologic symptoms were related to posterior circulation, and the fact that the stenosis had not progressed.

**Discussion**

The above case is the only known restenosis following carotid endarterectomy at the University of Virginia in the past six years. The incidence of restenosis is not known, but a review of several authors reveals a 0-4% reoperation rate for restenosis.[2-4] A problem in determining the true rate of restenosis is that most patients are not restudied unless symptoms recur. Edwards reported restudying 30 of 75 patients at Alabama five or more years after operation, with three significant, symptomatic restenoses requiring reoperation and six asymptomatic, less than 25% re-

From the Department of Surgery, Division of Thoracic and Cardiovascular Surgery, University of Virginia School of Medicine, Charlottesville.

Address correspondence to Dr. Calhoun, who is now in private practice at 8849 Long Point, Houston, TX 77055.

Submitted 8-8-80.

stenoses not reoperated.[3] Blaisdell found two serious restenoses in nine patients restudied from a series of 100.[5] Shuts found no restenoses but six occlusions in 50 patients studied.[6] Other reported rates of restenosis include Thompson 0.6%, Gasper 0.8%, Stoney 1.5%, and Kartchner 2.3%[2,4]

Stoney reported 29 patients with restenoses, with 24 being from his own series of 1,654 endarterectomies, an incidence of 1.5%. All but two of the 29 were restudied for recurrent symptoms, 17 with transient ischemic attacks and ten with nonspecific neurologic symptoms. Two were restudied for development of a new bruit. Nineteen stenoses were at the site of the previous endarterectomy; two were distal; and eight were proximal. Two patients had bilateral restenoses, and one had subsequent restenosis eight years following his first operation for restenosis.

Two distinct types of pathology have been identified—atherosclerotic and intimal fibrosis, with atherosclerotic stenoses occurring later, postoperatively (average of five years). Reported repairs vary and include repeat endarterectomy (only useful with atherosclerotic stenoses), arteriotomy with patching, and replacement with a vein graft. Atherosclerotic restenosis accounts for approximately two thirds of the cases.[4]

The cause of intimal fibrosis is not known. Stoney[4] raises the possibility of an intrinsic abnormality in the patient's tissue repair process suggested by the two bilateral recurrences in his series similar to the above case. However, demonstrated normal healing in late arteriograms following reoperations in several such cases does not support the hypothesis. Imperato[7] has shown experimentally in dog models that similar lesions may occur in very slow or very fast flow areas, suggesting hemodynamic factors. He also suggests that intimal fibrosis is an earlier stage of the same process resulting in atherosclerotic lesions, since histologically it resembles the fibrous portion of atherosclerotic plaques. He further suggests that closure with a patch rather than simple arteriotomy closure might prevent or decrease the incidence of restenosis. However, false aneurysm formation, another late complication, occurs almost exclusively in cases closed with patches. Our practice is to utilize simple closure with fine monofilament suture over a shunt which serves as stent during closure, in addition to its purpose of preserving intraoperative carotid flow allowing a meticulous, unhurried endarterectomy.

## Summary

In summary, restenosis of the endarterectomized carotid artery is a relatively rare late complication that demands aggressive diagnosis and management. Its etiology is as yet unknown. Several different methods of correction have been successful in its surgical treatment.

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# Carcinoma of the Ureter: Case Reports and Review

James A. Walsh, MD, *Salem, Virginia*

Primary carcinoma of the ureter is a relatively uncommon neoplasm, comprising less than 1% of upper urinary tract malignant tumors.[1] The purpose of this study is to review the clinical and radiological data of three patients seen recently at the Lewis-Gale Clinic, Salem, Virginia, and to evaluate their clinical features relative to the literature.

**Case Reports**

In these three cases of carcinoma of the ureter, emphasis is placed on the role of the urogram in the diagnosis of the disease.

*Case 1.* R.A., a 64-year-old woman, presented in August 1978 with hematuria. An excretory urogram demonstrated an obstructing, lobulated lesion in the middle third of the right ureter. A retrograde pyelogram confirmed the unusual shape and size (2 × 5 cm) of the lesion (Fig. 1). A right nephrourecterectomy was performed. Pathological diagnosis was Grade I papillary transitional cell carcinoma.

*Case 2.* R.S., a 75-year-old man, appeared in June 1978 with hematuria and prostatism. Excretory urography demonstrated an irregular, elongated, partially-obstructing lesion 1.2 × 2.5 cm in the distal third of the left ureter (Fig. 2). An enlarged prostate was also noted. A left lower ureteral resection and ureteroneocystostomy was performed. Pathologic study revealed a Grade I papillary carcinoma, polypoid. Carcinoma of the prostate was diagnosed at the same time. Later in the course of the disease, because of the recurrence of the tumor, the left kidney and proximal ureter were removed.

*Case 3.* C.R., a 58-year-old male, had a right nephroureterectomy at another institution in 1975 for transitional cell carcinoma of the ureter. Subsequently he had radiation therapy and resection of multiple bladder tumors before we saw him in December 1977. When seen here, a transurethral resection was performed to remove papillary transitional cell carcinoma of the urinary bladder. Frequent endoscopic followup examinations disclosed multiple recurrent neoplasms, all Grade I and II transitional cell tumors of the bladder, which were resected transurethrally.

In March 1979 recurrence of tumor was again noted in the bladder, but on that occasion tumor was seen protruding from the "resected" right ureteral orifice. Surgical exploration revealed a residual 4.5-cm stump of right ureter, which contained a bulky tumor. The stump was excised and segmental resection of the bladder was performed. (Figure 3). Despite prior radiotherapy and intravesical chemotherapy, recurrent neoplasm has been observed on recent followup examinations.

**Results**

Each of the three patients presented with hematuria, the presenting symptom in 74% of reported cases in the literature, which also reports flank pain in about one-half of patients and an abdominal mass, either enlarged kidney or lymph node mass,

From the Department of Radiology, Lewis-Gale Clinic, 1802 Braeburn Drive, Salem VA 24153.

Submitted 3-7-81.

**Fig. 1A, Case 1. Excretory urogram shows large, lobulated, radiolucent filling defect in middle one-third of right ureter. Moderate caliectasis noted.**

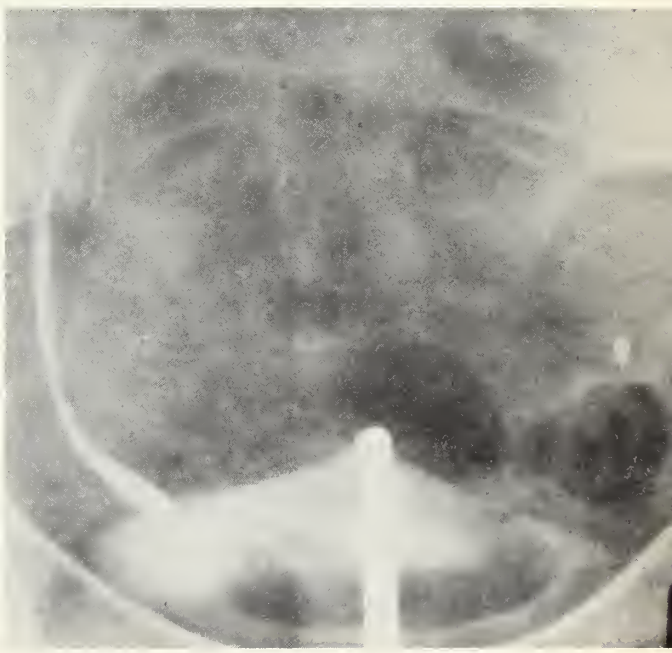

**Fig. 1B, Case 1(right). Retrograde urography shows inferior extent of lesion, which was primary papillary transitional cell carcinoma.**

in 30%[1]. The literature also reports bladder irritation seen in 10%; in 12% of patients no symptoms were present[2]; tumor cells were found in urinary sediment in a significant number of patients[3].

Urography is the principal mode of diagnosis. Obstructing lesions were seen in all of our three patients. In patients reported in the literature, nonfunction of a kidney was seen in approximately one-third[1,2] and decreased or delayed function seen in others. Hydronephrosis was a common finding, as was an intraureteral filling defect of variable size and shape. Narrowing of the ureter was found as the only sign in a number of cases[4].

Histologically, our three patients had papillary transitional cell carcinoma. The most common primary uroepithelial tumor is transitional cell carcinoma, which may be papillary (60%) or solid (40%).

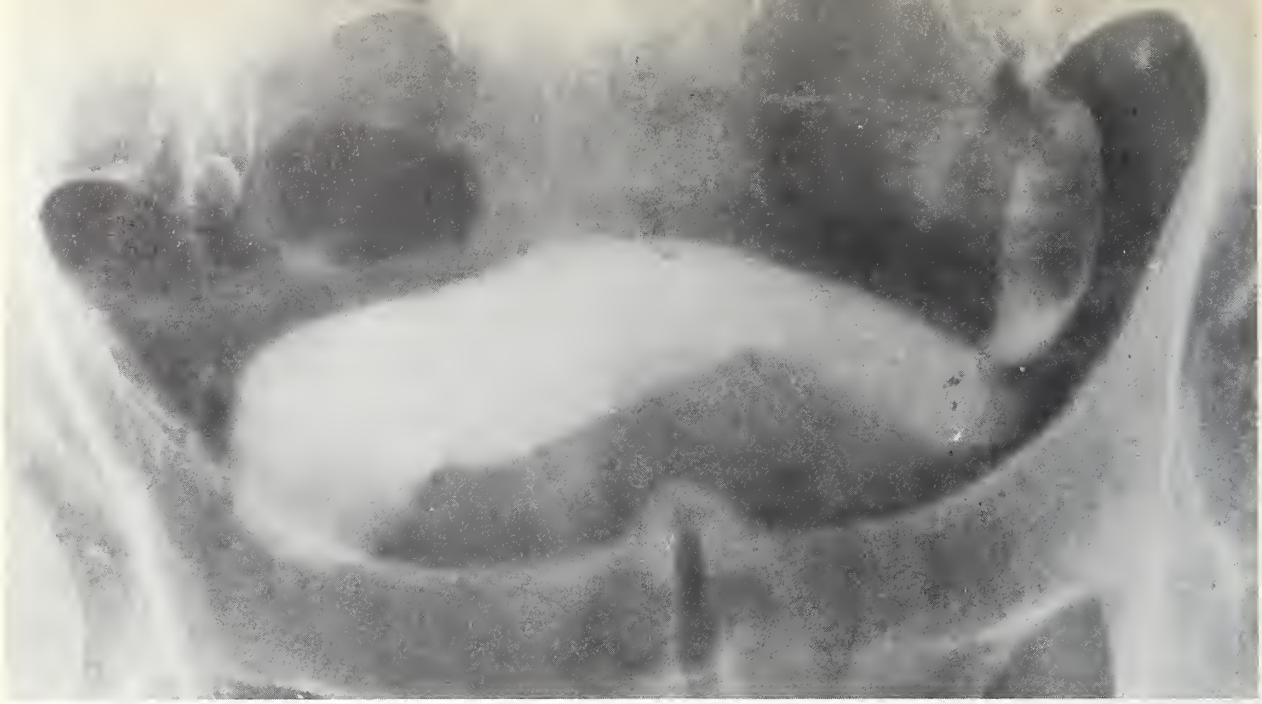

**Fig. 2., Case 2. Excretory urogram shows elongated, radiolucent filling defect in distal one-third of the left ureter, which was papillary transitional cell carcinoma.**

These resemble the epithelial tumors of the urinary bladder. The papillary types are usually attached by a broad pedicle and enlarge within the lumen; the solid variety often invade locally, ulcerate or narrow the lumen. Seventy percent of the lesions occur in the lower ureter[1]. The tumors may be bilateral and multifocal, thought to be due to surface extension, lymphatic spread or multicentric origin[3,4].

Other ureteral tumors, such as leiomyosarcoma and myosarcoma, arise from the mesothelium. Metastatic tumors from the gastroentestinal tract, uterine cervix, breast, skin, lung and prostate have been reported[5].

**Discussion**

The first case of carcinoma of the ureter was described by Rayer in France in 1842. The first histologically proven case was reported by Wising and Blix in 1878[3]. Seen predominantly in males (2.4:1), it is found in patients in the fourth to seventh decades. It appears to be increasing in frequency, as 2,200 cases were reported by 1976.

The tumor has been associated with workers in the dyestuff and leather-working industries, in patients having chronic urinary stasis, and with bilharzial infection, phenacetin abuse, excessive coffee drinking and heavy cigarette smoking[1,6].

Radiological diagnosis plays an important role. Failure to visualize the entire ureter during urography may cause a small ureteral carcinoma to be overlooked. Although most cases of ureteral obstruction are due to calculi, the differential diagnosis should include uncommon entities such as carcinoma, melanoma and amyloidosis[4]. Hydroureter and hydronephrosis may be caused by ureteral calculi and tumors, extrinsic pressure, periureteral and fibrosis or hormonal activity. Unilateral filling defects may be due to neoplasms, calculi, polyps and varices[3].

The radiologist should keep in mind that a primary carcinoma of the ureter may cause narrowing of the lumen, a finding which might be misinterpreted as due to scarring from previous infection[4].

Carcinoma of the ureter tends to metastasize more often and earlier than carcinoma of the bladder, most probably because of the thin wall of the ureter. Metastases occurred in 28% to 39% of several reported series of patients[1,2] and spread to the regional lymph nodes in 25-30% of cases[3]. Other major sites of involvement included the lung, spine and liver[1].

In patients not having total resection of the ureter following initial diagnosis, there is a 30% increased risk of tumor recurrence in the ureter distal to the original site. In more than 40% of patients, there is subsequent development of malignant disease in the bladder, a fact which emphasizes the necessity for careful endoscopic followup examinations.

**Summary**

Three cases of primary carcinoma of the ureter are reviewed and the clinical, radiological and

pathological considerations are discussed. The need for careful urographic study and an increased index of suspicion for this uncommon lesion is emphasized.

The author is indebted to Dr. T.S.R. Ward and Dr. Jeffrey Jones of the Lewis-Gale Clinic's Department of Urology for their cooperation and advice in the preparation of this paper.

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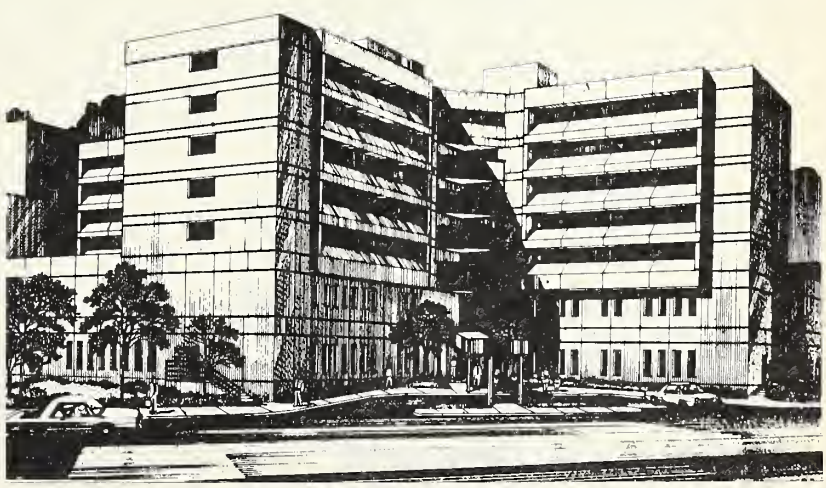

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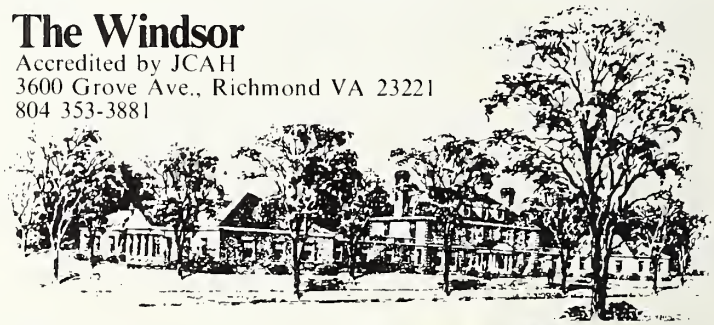

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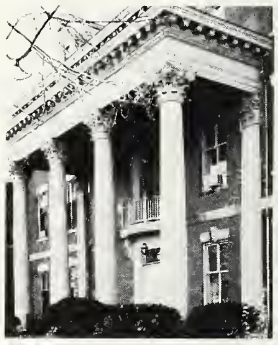

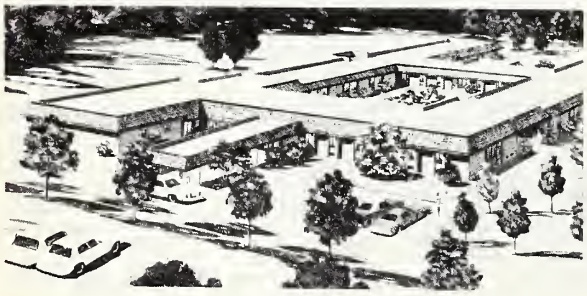

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# Grand Rounds: Assessing Ventricular Function in Left Valvular Heart Disease

From the Department of Medicine,
University of Virginia School of Medicine.
Discussed by Blase Carabello, MD.

## Presentation of Case

Dr. Michael Mithoefer: A 65-year-old retired domestic employee was admitted to the University of Virginia Hospital on 6 October 1980 for evaluation of increased shortness of breath and ventricular ectopy. She had first presented 14 years earlier with congestive heart failure, which was thought to be secondary to significant mitral regurgitation. The patient had refused further evaluation until 1972, at which time she underwent cardiac catheterization. The catheterization demonstrated moderate mitral stenosis, 3+ mitral regurgitation, moderate left ventricular dysfunction, and pulmonary hypertension. Specific pressures at catheterization were as follows: right ventricular pressure, 58/13 mm Hg; pulmonary artery pressure, 58/25 mm Hg; pulmonary capillary wedge pressure, 20 mm Hg (with a large V wave); and left ventricular end diastolic pressure, 19 mm Hg. The gradient across the mitral valve was 6.5 mm Hg at a heart rate of 100/min; this rose to 17.5 mm Hg at a heart rate of 140/min (and the pulmonary arterial pressure rose to 33 mm Hg). She refused mitral valve replacement surgery and was managed with digoxin and a diuretic. Although her course was complicated by episodic atrial flutter, multifocal ventricular ectopy, and, in 1974, a subendocardial myocardial infarction, the patient did well enough overall to handle her own shopping and housework. Early in 1979, she experienced persistent ankle edema. Over the past several weeks, she has noticed increased fatigue and decreased exercise tolerance. Her past medical history is significant for sarcoidosis, which was diagnosed in 1954 by chest x-ray and supraclavicular node biopsy; she was initially treated with a short course of steroids. We believe that her sarcoidosis has been inactive for several years.

The physical examination on admission showed a friendly black female who was in moderate respiratory distress. Her temperature was 37.4° (oral), pulse 60 with frequent premature beats, respirations 24, and blood pressure 130/60 mm Hg. Remarkable findings included a mild scoliosis, prolongation of the expiratory phase of breathing, diffuse inspiratory and expiratory wheezes, and bibasilar rales. Jugular

Edited by Gary C. Murray, MD, and Marcia Day Finney. Address correspondence to Mrs. Finney at Box 466, Department of Medicine, University of Virginia School of Medicine, Charlottesville VA 22908.

Presented 11-6-80.

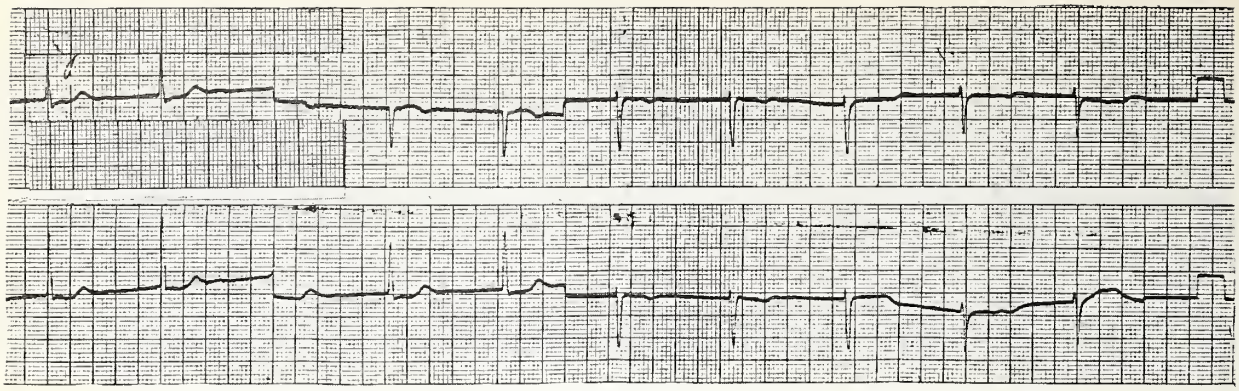

**Fig. 1A. Admission ECG showing junctional rhythm with nonspecific abnormalities.**

venous pulsations were visible approximately 14 cm above the right atrium. The point of maximal impulse was 1 cm left of the anterior axillary line; there was a ventricular heave and a systolic thrill along the left sternal border. Auscultation revealed a loud $P_2$, a grade IV/VI holosystolic murmur radiating from the apex to the axilla, and an $S_3$ gallop. Abdominal exam demonstrated a 15 cm liver, which was slightly tender. The extremities showed 2+ pedal edema. The remainder of the examination was unremarkable.

Laboratory data on admission showed hematocrit 41% and WBC 4500/mm$^3$ (normal differential). SMAC was remarkable for total bilirubin 1.4 mg/dl, total protein 5.8 g/dl, and glucose 135 mg/dl. Arterial blood gases on room air showed pH 7.44, $pO_2$ 63, and $pCO_2$ 36. The admission electrocardiogram was changed from her baseline of atrial flutter to show a junctional rhythm with right axis deviation, poor R-wave progression, and nonspecific ST and T-wave abnormalities (Fig. 1A). On the day following her admission, the ECG had changed to show normal sinus rhythm with first-degree atrioventricular block (Fig. 1B). Chest x-ray on admission was remarkable for pulmonary vascular engorgement and marked cardiomegaly.

While in the hospital, the patient was treated with diuretics and bronchodilators, and she experienced a 2.7 kg diuresis. Her dyspnea and ventricular ectopy decreased. When the patient's condition had stabilized, she was discharged to the care of Dr. McGuire.

## Radiology

Dr. Norman Brenbridge: In a chest x-ray taken in 1967 (Fig. 2), the patient's heart and pulmonary outflow tract are both prominent and the remainder of the pulmonary vasculature is unremarkable. The hila are slightly prominent and there is a right upper lobe interstitial, nodular pulmonary process; these findings are consistent with sarcoidosis. A film taken in 1972 shows enlargement of the heart and a slight increase in upper lung vascularity. A 1977 film reveals further cardiac enlargement, no change in the right upper lobe infiltrate, and increasingly prominent eggshell calcifications. Finally, her most recent film (Fig. 3), taken on admission, demonstrates cardiomegaly with left ventricular, left atrial, and right ventricular enlargement, frank pulmonary vascular engorgement, the previously noted right upper lobe infiltrate, and a further increase in the eggshell calcifications. All of these findings are consistent with mitral valvular disease, perhaps of rheumatic origin, and pulmonary sarcoidosis. However, there is also a possibility that she has primary myocardial sarcoid-

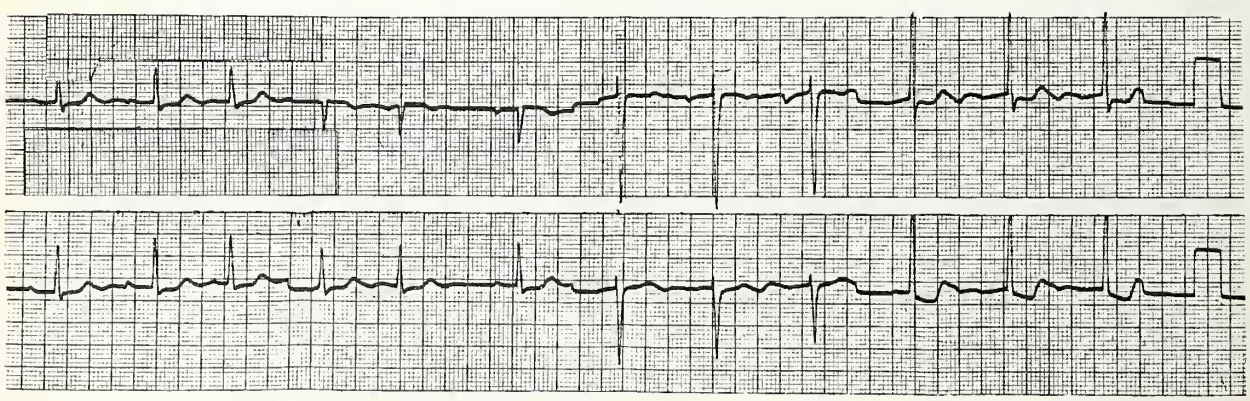

**Fig. 1B. ECG on day after admission showing normal sinus rhythm and 1° AV block.**

osis, dilatation of the mitral annulus, and progressive valvular dysfunction; this would not be dependent on a history of rheumatic heart disease. Such a distinction, though, cannot be made on the basis of the radiographs and would have to be derived from the clinical information.

DR. EDWARD W. HOOK: Dr. Lockhart B. McGuire of the Division of Cardiology has followed this patient for several years. He will talk briefly with her about her condition.

DR. MCGUIRE: The principal question in your case has been whether your heart murmur represents a condition requiring surgery. Approximately eight years ago, you developed some shortness of breath and an irregular heart rhythm and you required digoxin and a diuretic. You underwent a cardiac catheterization. Do you recall our discussion about the results of that procedure?

PATIENT: Yes, it showed that my heart valve was leaking and should be replaced. I thought it over but refused the surgery because I was feeling fairly good.

DR. MCGUIRE: Over the past eight years, have you felt mostly healthy, or sick and short of breath?

PATIENT: During the past year, I have not had the amount of energy I had in previous years, but I have felt well enough to manage my home.

DR. MCGUIRE: Your admission this time was prompted by accumulation of fluid in your lungs and ankles. Do you feel sick enough right now to require a heart operation?

PATIENT: No, not at all.

DR. MCGUIRE: I did not pursue the question of surgery with you more vigorously eight years ago because I was not absolutely convinced that an operation was necessary either to prolong your life or to improve its quality. We will continue to explore these questions as time passes.

## DISCUSSION

DR. BLASE CARABELLO: The first issue we must consider in selecting patients for valvular surgery is its relative efficacy. In comparing the five-year survival time of patients treated medically or surgically for various symptomatic valvular lesions, we find a wide range of survival times, all dependent on the nature of the underlying lesion. In patients with mitral stenosis, the five-year survival rate with medical therapy ranges from 50-70%, depending on the severity of symptoms at the time of the patient's entry into the study, versus an 85% survival rate with surgery. Patients with symptomatic aortic stenosis have a very poor survival rate with medical management

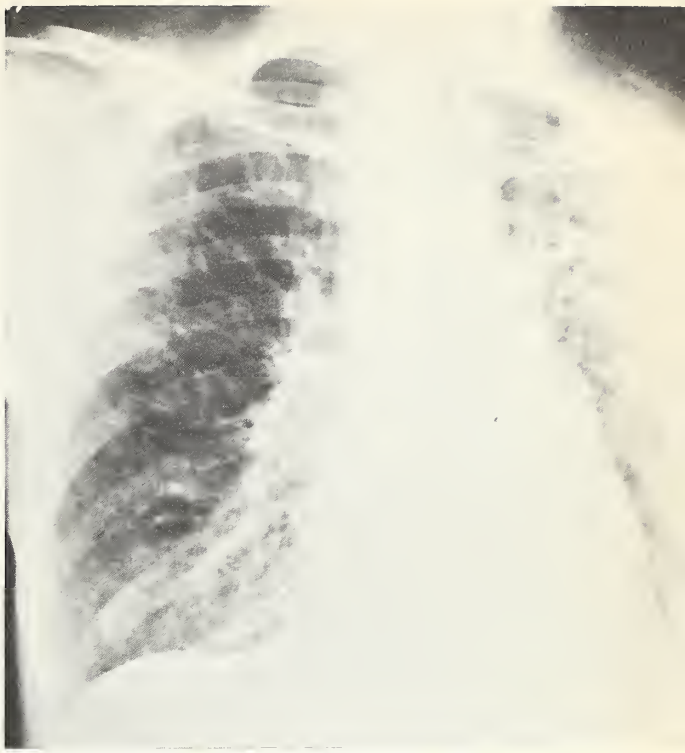

**Fig. 2. Early chest x-ray (1967) showing cardiomegaly, prominent pulmonary outflow vasculature and right upper lobe infiltrate.**

**Fig. 3. Admission chest x-ray (1980) showing increased cardiomegaly, pulmonary vascular engorgement and interstitial infiltrates.**

but an 80% survival rate with surgery. This type of series using historical controls is probably valid for stenotic lesions because there is no highly effective medical therapy for these conditions. Digitalis and diuretics are temporary, palliative interventions; there is no definitive medical therapy for mechanical obstruction of flow through the heart.

There is a wide range of survival figures for patients with regurgitant lesions. The five-year survival rate for patients given medical therapy for mitral regurgitation, for example, is cited as between 45-80%. This reflects great uncertainty about the natural history of regurgitant lesions. Further, some studies indicate that patients with regurgitant lesions experience lasting improvement in ventricular function with medical unloading therapy; such findings tend to undermine the validity of series of historical controls treated medically.

Stenotic lesions have a well-defined natural history, and surgery both ameliorates the symptoms and improves the patient's longevity. Regurgitant lesions are less well understood, both in their natural history and in their response to therapy. Nine out of ten cardiologists presented with the patient interviewed today probably would have recommended surgery eight years ago, yet this patient has fared quite well without surgical intervention.

Notwithstanding the success of valvular surgery, surgical intervention presents problems of its own, problems which must be carefully considered before electing an operative course for a patient. First, the operative mortality ranges from 5-15%. Second, all prosthetic valves are relatively stenotic and restict blood flow somewhat. Third, the hard prostheses carry an increased risk of thromboembolic events (1-3% per year), even with anticoagulation—and, of course, one must consider the risks of anticoagulation therapy. The porcine heterograft valve is not associated with such a high incidence of thromboembolic complications, but its durability has yet to be proved. For that matter, every prosthetic valve has a finite life span. Finally, there is an undefined risk of infection associated with prosthetic valves.

**Table 1. Five-Year Survival Time of Patients Treated for Symptomatic Valvular Lesions.**

| Valve lesion | Survival over five years | |
|---|---|---|
| | medical treatment | surgical treatment |
| Mitral stenosis | 50–70% | 80% |
| Mitral regurgitation | 45–80% | 70% |
| Aortic stenosis | 40% | 80% |
| Aortic regurgitation | 50% | 75% |

I would caution, then, that patients with valvular lesions should not necessarily undergo valve replacement surgery at the earliest possible date because of the morbidity and mortality associated with valve replacement and the finite life of the prosthesis.

Counterbalancing these considerations is the fact that, once the left or right ventricle has become diseased and has been injured by the pressure or volume overload imposed on it, replacement of the valve is not likely to improve greatly the patient's clinical condition. Therefore, difficult decisions must be made and frequently reviewed so that one does not operate too early, because of the risks of the procedure, yet does not postpone the surgery too long, because the patient may suffer irreversible myocardial damage.

One frequently sees patients who have had valvular lesions for several years but who have only recently become symptomatic. Two questions must then be addressed: whether or not the individual patient is an acceptable operative risk, and whether or not surgery will be of symptomatic benefit to him. Several important risk factors bear upon surgical outcome (Table 3). Age is a more critical risk factor in mitral valve surgery than in aortic valve surgery; age is a particularly important factor if the candidate for mitral valve replacement is more than 65-70 years old. Age is not a strong contraindication for replacement of a stenotic aortic valve; excellent results can be obtained in surgery for aortic stenosis in octagenarians. Coexisting noncardiac disease does increase surgical risk, as does the presence of either pulmonary hypertension or coronary artery disease.

Probably the single most important prognostic factor in valvular surgery is preoperative ventricular function. The condition of the left ventricle (or, in cases of mitral stenosis, the condition of the right ventricle) at the time of surgery affects not only the operative risk but the ultimate success of the intervention. However, accurate preoperative assessment of the functional status of the ventricles has been a significant clinical problem.

Left ventricular end diastolic pressure (LVEDP), although a highly touted measure in some circles, is not a very useful means of assessing ventricular function, as Figure 4 illustrates. Both patient A and patient B have abnormally high LVEDPs of 22 mm Hg, yet they have marked differences in ventricular function. Patient A has a normal left ventricular filling pressure throughout most of diastole, indicating normal ventricular emptying, but has a sharp rise in pressure following the atrial contraction; this implies that his elevated LVEDP results from a large atrial volume or a noncompliant ventricle, not from ven-

tricular dysfunction. Patient B, on the other hand, maintains an elevated filling pressure throughout diastole and clearly has left ventricular failure, which accounts for his elevated LVEDP. Measurement of LVEDP alone cannot distinguish between these two situations.

A measure of ventricular shortening, ejection fraction is the parameter most widely used today to estimate ventricular function. Obtainable by echocardiography, radionuclide scanning, or angiography, the ejection fraction relates the difference in ventricular volume between the end of systole (ESV) and the end of diastole (EDV), also known as the stroke volume, to the end diastolic volume (EDV). Expressed as a formula:

$$\text{ejection fraction (EF)} = \frac{\text{EDV—ESV}}{\text{EDV}}$$

Patients are often compared by ejection fraction, and many investigators have noted that patients with lower ejection fractions fare less well than do their normal counterparts. However, ejection fraction alone measures only one of the two factors affecting muscle performance, the amount the muscle shortens. It ignores the load against which the muscle works, or assumes that this load is the same for all patients. Although this assumption may be valid when one is comparing normal individuals or those with coronary artery disease in the absence of myocardial infarction, it may not be at all accurate when one is comparing patients with valvular heart disease. Ventricular loading conditions vary markedly among patients with valvular lesions; as a result, comparisons of ventricular function based solely on ejection fraction measurements may be grossly inaccurate.

The load against which the heart muscle contracts is known as afterload and can be expressed as the wall stress of the ventricle. Wall stress is simply a measure of the force per cross-sectional area of myocardium. Wall stress may be characterized by the Laplace relationship in terms of the ventricular pressure (P), the radius of the ventricle (r), and the thickness of the ventricular wall (h). Expressed as a formula:

$$\text{wall stress} = \frac{P \times r}{2h}$$

All of these parameters are readily obtainable at cardiac catheterization and allow measurement of the force of contraction of the ventricle. The wall stress and the ejection fraction can be used together to assess myocardial performance.

Patients with mitral regurgitation have falsely elevated ejection fractions because part of the diastolic ventricular volume is dispersed into the low-pressure

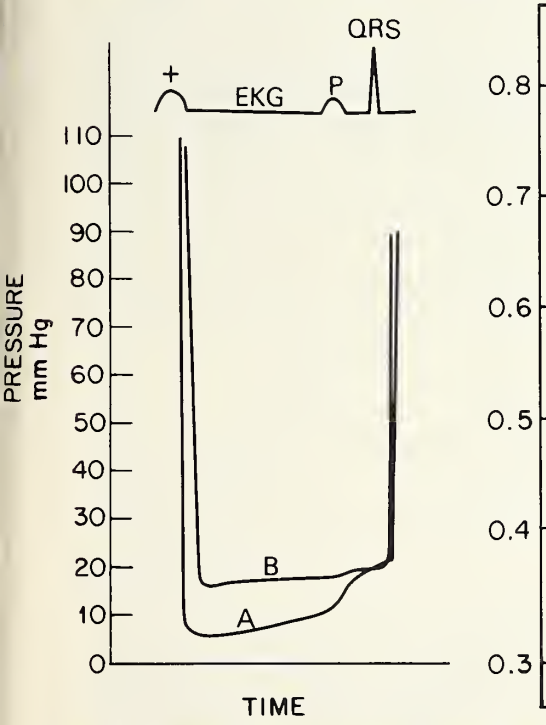


Fig. 4. Comparison of elevated LVEDP in a patient with normal ventricular emptying (A) and a patient with left ventricular failure (B).

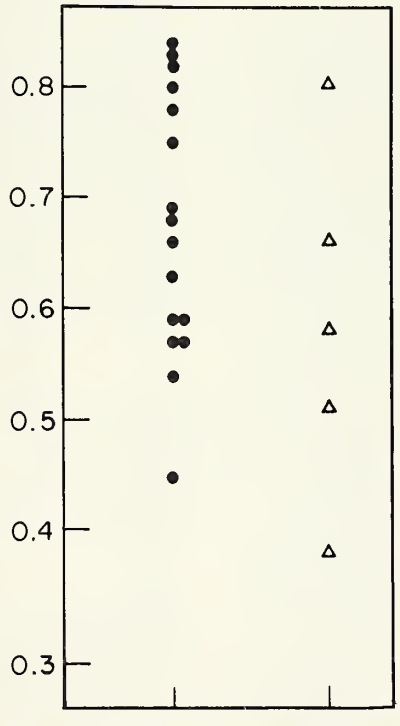


Fig. 5. Ejection fraction in patients who had valve replacement surgery. Black dots = successful surgical intervention, triangles = failure.

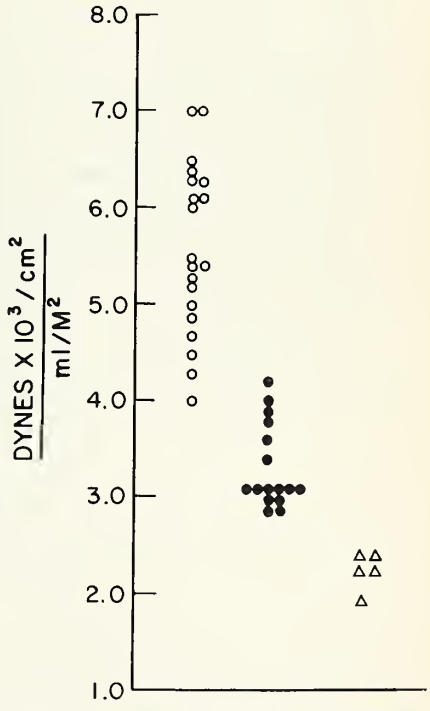


Fig. 6. Comparison of ratio of wall stress to end systolic volume in normals (circles), successful surgical interventions (black dots) and failures (triangles).

left atrium instead of into the high-impedance aorta. If one measures only the ejection fraction in these patients, one overestimates their left ventricular functional capacity.

At the University of Virginia, 21 patients with mitral regurgitation (and no other valvular lesions or coronary artery disease) have been studied (Fig. 5). All patients had valve replacement surgery. Successful surgical intervention was defined as the attainment of New York Heart Association (NYHA) functional Class I or II, and failure was defined either as perioperative mortality or inability to progress beyond NYHA functional Class III. When we plotted these results against the preoperative ejection fractions, there was considerable overlap between the two groups, although patients in the successful group did tend to have slightly higher values than did those classified as failures. This study indicates that preoperative ejection fraction alone is not an accurate indicator of surgical outcome.

Comparing ventricular volumes with mitral regurgitation in these patients resulted in the same type of overlap between the two groups. Even though both left ventricular end systolic volume and left ventricular end diastolic volume tended to be larger in the patients for whom surgery was deemed a failure, the values for the two groups were too similar to permit valid prognostication of surgical outcome.

Accurate characterization of ventricular contractility depends on evaluation of the muscle shortening in relation to the load imposed on the ventricle. When one compares patients' wall stress (an expression for afterload) to end systolic volume (an expression for the amount of ventricular shortening), one generates ratios which distinguish between normals, patients with mitral regurgitation for whom surgery was successful, and patients with mitral regurgitation and poor surgical results (Fig. 6). The ratios are highest in normal individuals, lower in patients with successful surgical interventions, and significantly lower in the surgical failures. In fact, when several parameters—this ratio, age, pulmonary capillary wedge pressure, cardiac output, end systolic volume, end diastolic volume and ejection fraction—were subjected to multivariant discriminate analysis, this ratio of wall stress to end systolic volume proved to be the most accurate predictor of surgical outcome.

While the ventricular loading conditions in mitral regurgitation are favorable, the valvular obstruction in aortic stenosis imposes a very heavy load on the left ventricle. Given the ominous natural course of symptomatic aortic stenosis, all patients with this condition should be seriously considered for surgical repair. Evaluation of patients who have both significant aortic stenosis and congestive heart failure is especially problematic. We have studied 14 such patients. For these 14, the mean pulmonary capillary wedge pressure was 28 mm Hg, the mean ejection fraction 28%. As in the series of patients with mitral regurgitation described above, the patients in this series were divided into two groups in accord with the results of their surgery. The patients for whom surgery was successful (Group A) attained NYHA functional Class I or II following operative intervention, while the other patients (Group B) either died at surgery or failed to progress beyond NYHA functional Class III. Although the mean ejection fraction for Group A was greater than that for Group B, three of the ten patients in Group A had ejection fractions similar to those of the four patients in Group B. Thus, in this series, as in the study of patients with mitral regurgitation, ejection fraction alone could not distinguish between the two groups of patients and so was not deemed a good predictor of surgical outcome.

One measurement of prognostic significance in patients with aortic stenosis and decreased ejection fraction is the mean systolic gradient across the valve. In the series of 14 patients described above, all ten patients who did well at surgery (Group A) had high valvular gradients, while all four patients for whom surgery was unsuccessful (Group B) had systolic valvular gradients markedly below those of Group A patients. When we compared the amount of muscle shortening to afterload or wall stress (Fig. 7),

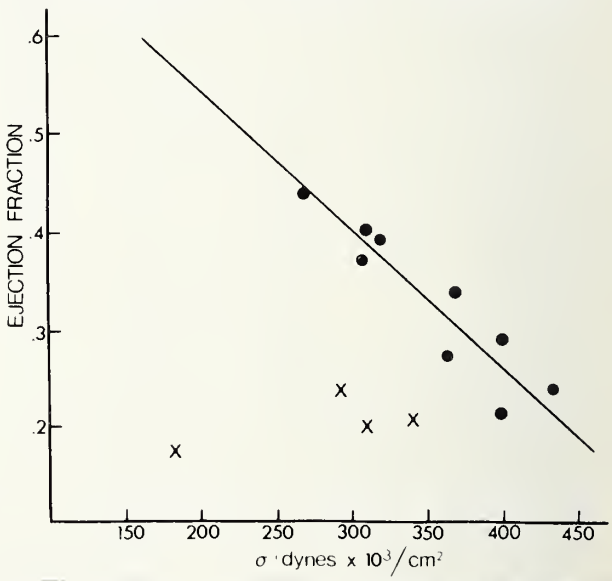


**Fig. 7. Comparison of muscle shortening to wall stress in patients with decreased ejection fraction and aortic stenosis. Black dots = successful surgical intervention, crosses = unsuccessful.**

we found that those patients who did well at surgery had ejection fractions which could be extrapolated to normal for a normal degree of wall stress. Thus the low ejection fractions in this group were due to an abnormally high afterload, a factor which can be improved significantly with surgery. In contrast, in the patients for whom surgery was deemed unsuccessful, afterload was not abnormally high, so that the depressed cardiac performances of these patients could not be attributed to high afterload but rather were more likely the results of myocardial dysfunction. For these patients, surgery is both dangerous and of little value.

For patients such as the woman interviewed today, these data suggest a method of prospective evaluation and followup superior to the traditional method using electrocardiography and chest radiography. By using echocardiography (to determine the ventricular radius and wall thickness) and systemic blood pressure readings (to determine ventricular pressure), we are able to determine noninvasively the components of wall stress. The wall stress can then be compared to the end systolic volume, as shown earlier, to assess more accurately the ventricular function and to plan appropriate interventions.

In summary, ventricular function is a major determinant of both operability and surgical outcome in patients with valvular heart disease. To evaluate ventricular function properly, one must consider the load on the ventricle in addition to the amount of shortening. If one relies only on the ejection fraction as a measure of the ventricular performance, a patient with mitral regurgitation will have a falsely elevated left ventricular functional status, whereas the functional status of the left ventricle of a patient with aortic stenosis will be falsely depressed. It is hoped that these principles may be applied successfully to the evaluation and management of patients with mitral stenosis and aortic regurgitation.

DR. HOOK: We are fortunate to have visiting today Dr. Lewis Dexter, professor emeritus at the Brigham and Women's Hospital in Boston. He is responsible for much of the classic work on the evaluation of mitral stenosis, pulmonary hypertension and pulmonary embolism.

DR. DEXTER: Dr. Carabello has elegantly demonstrated the fearsome problem of accurately determining ventricular function in patients with valvular heart disease. In terms of the timing of surgery, the stenotic lesions pose less difficulty than do the regurgitant ones because the patients with stenotic lesions tend to be more symptomatic; they may in fact push their physicians toward operative intervention. Patients with regurgitant lesions, on the other hand, are not nearly so symptomatic and the progression of their disease is often so gradual that they will restrict their activities imperceptibly to accommodate their worsening ventricular function. The patient presented today is a dramatic illustration of this problem. Undoubtedly, her ventricular function has deteriorated considerably over the eight years since she first refused surgery, yet she continues to deny the need for any operative intervention.

Sudden death, most probably as a result of ventricular fibrillation, looms as a major problem in the management of regurgitant valvular lesions. Patients with aortic regurgitation are particularly at risk. Unfortunately, the severity of aortic regurgitation, unlike that of aortic stenosis, does not correlate closely with the degree of left ventricular impairment. Here is another reason to avoid delaying surgery unnecessarily.

DR. HOOK: Dr. McGuire, would you care to comment on your patient's ventricular function at present?

DR. MCGUIRE: Her current circulation time is prolonged at 17 seconds, which may represent either low cardiac output or high volume regurgitation. Her ejection fraction, measured by nuclear scanning, is 52%. Although this value falls within the low normal range, it probably is indicative of significant ventricular impairment in the face of mitral regurgitation.

Earlier, Dr. Brenbridge suggested that this patient may have a large myopathic heart and a secondary systolic murmur rather than significant mitral regurgitation producing volume overload and cardiomegaly. The ejection fraction allows us to discriminate between these two conditions. Almost without exception, no one with a primary cardiomyopathy and this degree of cardiomegaly will have an ejection fraction above 25%, and this patient's ejection fraction is 52%.

DR. CARABELLO: I agree with Dr. McGuire on both of his points. It would be extremely unusual for a cardiomyopathy to produce this degree of cardiac dilatation and mitral regurgitation and still leave an ejection fraction of 52%. However, this value is probably very low in view of the ventricular unloading due to the regurgitant lesion and may portend major problems at surgery.

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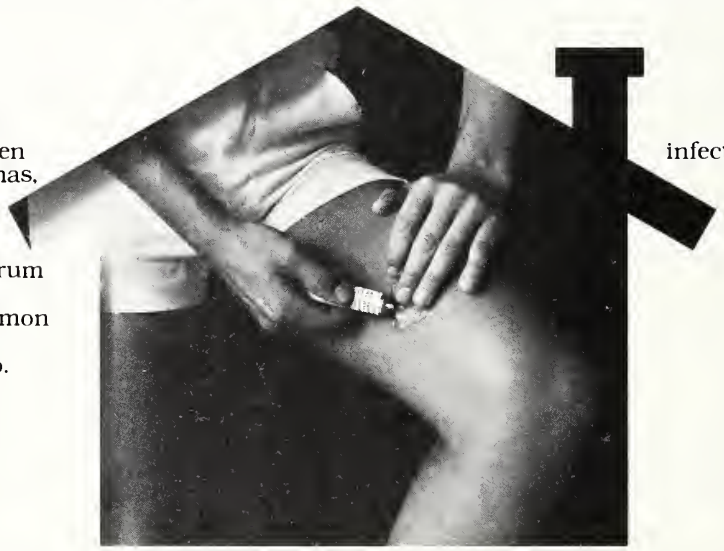

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VIRGINIA MEDICAL
EDITORIAL

# A Salute to President Alexander

THE NEW President of The Medical Society of Virginia is Haddon Christopher Alexander of Roanoke. He is a tall figure of a man who practices internal medicine and is well known to most members of the Society.

He was born in Richmond, Virginia, in 1933 and has spent most of his life in Virginia. He received his primary schooling in Farmville, where his family moved when he was very young. His late father, H. C. Alexander, Jr., MD, practiced medicine there and was a role model for Chris. The importance of high ethical standards for a physician was well demonstrated. His father was highly respected in the community and felt that the commitment to practice medicine entails leadership responsibility on a local level as well as statewide involvement in medical organizations. His philosophies were deeply instilled in Chris and have been guide marks for his development into a leader in medical affairs.

(Editors' Note: In the picture of Dr. Alexander on the opposite page, his father's photograph hangs on the wall at top left. Below it is a likeness of the late Walter B. Frommeyer, MD, who was chairman of the Department of Medicine, University of Alabama School of Medicine, when President Alexander trained there.)

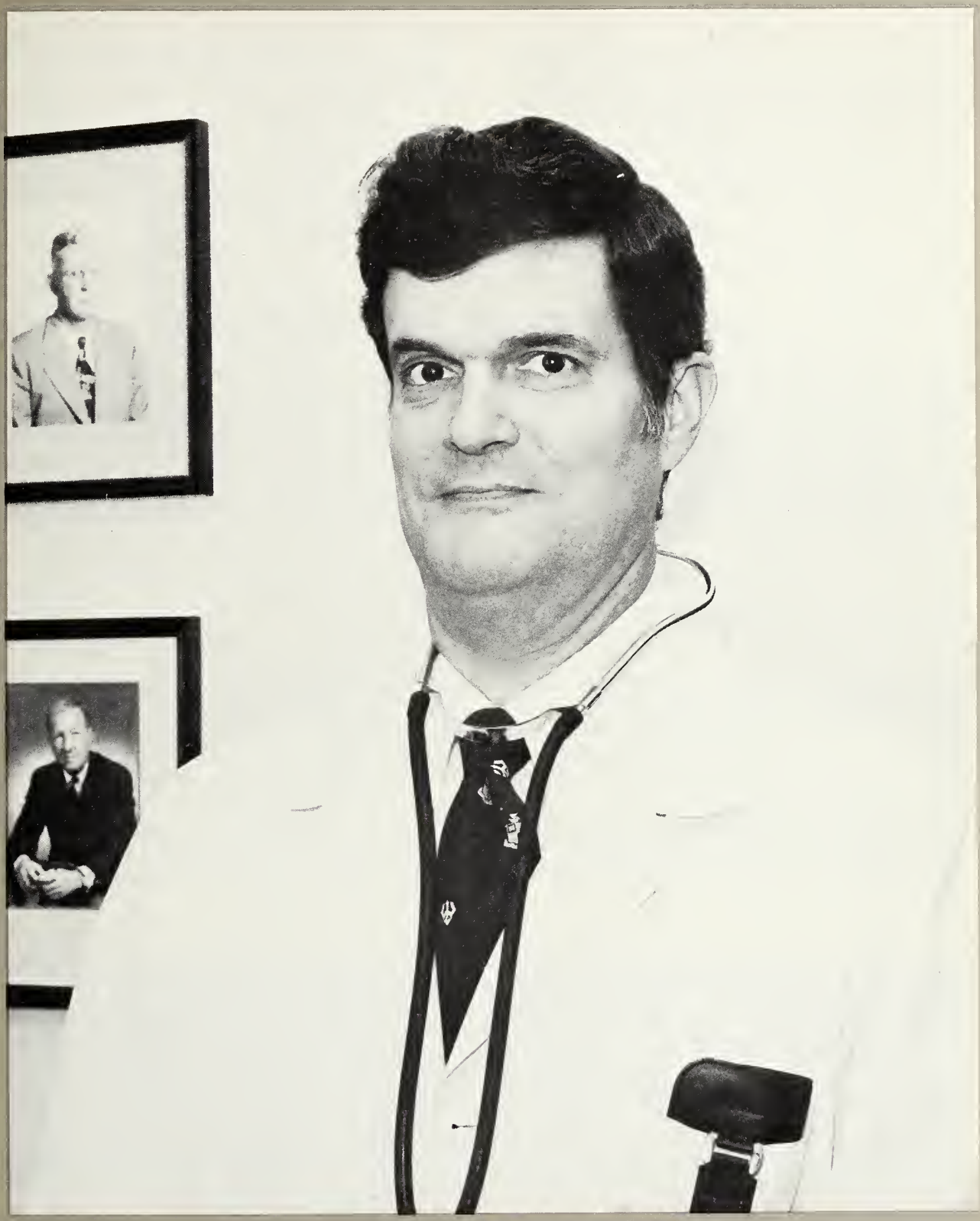
After his early schooling in Farmville, Chris entered that cauldron of learning in Lexington, Washington and Lee University, to begin his pursuit of a family tradition in medicine. He graduated cum laude and matriculated to the School of Medicine of the University of Virginia. He performed well there, received awards and fellowships and became a member of the Raven Society.

A fortuitous event occurred in his senior year. He encountered a young lady from Kentucky on a blind date. She was very interested in medicine, and both her father and grandfather were physicians. Her charm soon crystallized Christopher, and they were married in Owensboro, Kentucky.

He took his bride to Birmingham and served an internship and residency in internal medicine at the University of Alabama Medical Center. His service with the US Air Force then took them to Sculthorpe Air Force Base in England from 1961 to 1964. He returned to Alabama for a residency in internal medicine and rheumatology, then entered the private practice of medicine in Roanoke, Virginia, in 1968.

His involvement in the activities of The Medical Society of Virginia started at the time of his arrival in Roanoke. He worked with the Roanoke Academy of Medicine and became a delegate to the state society. He did his homework well and led the Sixth District delegation as their councilor three years later.

His work with The Medical Society of Virginia committees became increasingly more demanding and involved. He worked closely with John Martin and the presidents and committee chairmen who followed. His reputation as a hard and productive worker and as an effective leader in statewide



Photograph by Susan C. Alexander

HADDON CHRISTOPHER ALEXANDER, III, MD,
PRESIDENT, 1981–1982, THE MEDICAL SOCIETY OF VIRGINIA

activities led successively to his nominations as second and first vice-president, then president-elect.

There is no interval history of serious local involvement because he was too busy with state society affairs. He contributed his talents of organization and leadership to the support of conservative, medically-oriented political candidates.

The mandate of the Medical Society of Virginia to develop a professional standards review foundation required intensive work with long hours away from home by a few members of the Society, one of them Chris, and he later was president of the Southwest Virginia PSRO.

Examination finds a tall, healthy, confident man who is alert and receptive of information. He expresses his position well and leaves no doubt that an organized medical community is good medicine for patients and physicians. He carries a heavy load of responsibility, but he carries it easily. He has time for his family, his friends, and is able to enjoy his love of outdoors, but he works long days. His faith in the Second Presbyterian Church is an extension of his Scottish background. Both he and Mary are descended from Scotsmen who came to America before the Revolutionary War.

He lives in a wooded section of southwest Roanoke in a very attractive colonial house designed by Mary and him. It has been their home for ten years. Only one of their three children remains at home; she is Margaret Winn, a high school sophomore. The oldest is Susan Campbell, who is now a junior at Duke University and who took the picture of her father that appears with this editorial. A son, Haddon Christopher, IV, entered Washington and Lee University as a freshman in September of this year.

The next year of commitment to The Medical Society of Virginia will take precedence over the new President's other interests and associations. He has the background of dedicated interest in medicine to serve our state Society well, and when he carries our standard to other states, we will be well represented.

WILLIAM W. S. BUTLER, III, MD
1234 Franklin Road, SW
Roanoke VA 24016

# Enough!

HOW MUCH is enough? Usually just a little more—a few more submarines, a few more guided missiles, a few more atomic bombs, a few more laws, a few more regulatory agencies, a few more taxes. But enough is enough when avoidable human tragedies are involved.

Virginia ophthalmologists have gathered nearly 200 case reports of patients who should have been promptly referred by paramedical professionals for medical care but were not.

- An elderly woman twice saw an optometrist who could not improve her visual acuity beyond 20/50 in either eye but who did sell her a pair of eyeglasses. Because she was not referred for medical evaluation, a year and a half passed before she sought medical help. A far advanced chromophobe adenoma of the pituitary gland was then found.
- A man was told that he had "a touch of glaucoma" and that he should return to see the optometrist in a few weeks. The man was not referred for a medical eye examination.
- A patient with poor vision and advanced glaucomatous cupping of the optic discs was sold glasses but was not medically referred.
- An elderly man saw an optometrist because of poor vision in one eye but was not referred for medical evaluation. A few days later the vision in that eye was only hand movements because of an advanced retinal detachment.
- A woman with known metastatic carcinoma of the breast saw an optometrist because of double vision. She was sold a pair of eyeglasses but was not medically referred for her paretic lateral rectus muscle, caused by a solitary intracranial metastasis.

The list goes on and on.

We physicians recognize the current legislative schizophrenia concerning health care: First class medical care for everyone, but watch the cost. Efficiency in health care, but ration the CAT. Physicians should police their own ranks, but devise a legal system to over-protect offenders. This schizophrenic attitude is most apparent in demanding more documented continuing medical education for physicians while simultaneously extending medical privileges—without adequate safeguards for the public—to those with incomplete or no medical training.

Admittedly, many paramedical professionals perform their services well. The problem is that the public is confused about who is who and who does

what. When the examiner has the title of "Doctor," the patients have no hope of understanding who is fully trained medically or of knowing whether or not they have had a medical evaluation. This confusion in the minds of the public, combined with delayed referral or even with no referral for obvious medical problems, has harmed many innocent patients. Therefore, the Virginia Society of Ophthalmology and Otolaryngology is seeking legislative action to require prompt referral to physicians of patients with possible medical problems of the eye.

Medicine is an inexact science, and physicians are not perfect people. But until the patient sees a physician, medical evaluation and care cannot begin. Paramedical professionals perform useful and necessary services, but as long as the public is confused and as long as the problem of delay in referral of obvious medical problems exists, the public needs protection.

RICHARD E. GARDNER, MD
2010 North Augusta Street
Staunton VA 24401

# The Medical Article as Art Form

ART has rules, although Beethoven broke them, and I think Chopin did, too; Picasso and Modigliani did, and so did all the impressionists and the dadaists and the ashcan school. But there are regulations. The sonnet has exactly 14 lines. Haiku has 17 symbol-sounds. In geometry, you say given, and to prove, and Q.E.D. In ballroom dancing, I count one, two, three to see if it's a waltz; and if it goes to four, I don't cavort with as much abandon. Shakespeare's plays are all five-act productions; is medical writing a literary form, too?

In medicine, we start, too often, with going back to the year one, or we begin by justifying the undertaking of the study. When an author says, what we set out to prove, I stop reading; he knew the answer before he did the study. What I like better is, what we set out to see. Fifteen authors strain my credulity, sometimes two do; and I do not always believe that the first author wrote the manuscript.

But we state the problem first, then we tell how we did the work. We speak of random selection, and of validity, of statistical significance and chi-square tests. Then we reach conclusions, like Q.E.D. Sometimes there is an abstract at the beginning of the article, or there may be a summary at the end.

Then there are before-and-after pictures, four-place tables, X-rays, thank-you notes; and references, arranged chronologically, alphabetically, or serially as they appear in the text; and references conform to system, as Index Medicus.

Medical writing is, indeed, an art; it has its own jargon and its very own rules. I have many times curled up in an armchair with a good medical whodunit. Try it, the next time you run across a good medical report; enjoy it as you would fine painting or ballet. When he writes, your doctor is an artist.

FRANK COLE, MD

Dr. Cole is Editor of the *Nebraska Medical Journal*, and this editorial is reprinted with his permission from that journal's March 1980 issue. He may be addressed at 13 Bishop Square, 3901 South 27th Street, Lincoln NE 68502.

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# VIRGINIA MEDICAL OBITUARY

## C. W. Warren, Sr., MD

Dr. Charles W. Warren, Sr., for many years a family physician in Upperville, died August 3 at his Upperville home. He was 71 years old.

Born in Middleburg, Virginia, Dr. Warren was graduated from the Medical College of Virginia and trained in the Washington area at the National Naval Medical Center and Washington Hospital Center, then began practicing in Upperville. He served with the US Army during World War II, resuming his practice after the war, and retired in 1979. Dr. Warren came to membership in The Medical Society of Virginia through the Fauquier County Medical Society and belonged also to the American Academy of Family Physicians.

## Hassan Nazif, MD

Dr. Hassan Nazif, who had a private pediatric practice in Reston, died August 1 at Georgetown University Hospital, where he had trained in 1965. He was 43 years old.

A native of Damascus, Syria, Dr. Nazif came to this country in 1963 and studied at the University of Pennsylvania. After his residency, he joined the faculty of the Department of Pediatrics of Georgetown University's School of Medicine and stayed there until 1978, when he established his private practice. Dr. Hassan came to membership in The Medical Society of Virginia through the Fairfax Medical Society and belonged also to the Northern Virginia Pediatric Society, the Virginia Chapter, American Academy of Pediatrics, and the American Medical Association.

## Ralph J. Coppola, MD

Dr. Ralph Jerome Coppola, interim chairman of the Department of Psychiatry and Behavioral Sciences at Eastern Virginia Medical School, died August 13 at his Norfolk home. He was 54 years old.

Born in Paterson, New Jersey, Dr. Coppola was a graduate of Drew University and the University of Chicago School of Medicine. He trained in Honolulu, Chicago, Brooklyn and Pittsburgh, where he then entered private practice and subsequently became a faculty member of the University of Pittsburg School of Medicine. Joining the EVMS faculty in 1974, he developed that school's curricula for psychiatric residency programs and was clinical supervisor for students in psychiatry. He served with the Army Medical Corps during the Korean War.

He came to membership in The Medical Society of Virginia through the Norfolk Academy of Medicine and belonged also to the American Psychiatric Association, the Virginia Psychoanalytic Society, and numerous other organizations related to his specialty.

## Memoir of Herbert M. Levitt, 1921-1981

*By Milton Ende, MD, and Alvin Cohen, MD*

Dr. Herbert M. Levitt died on Saturday, May 30, 1981, at Petersburg General Hospital. He had been ill approximately two years and lived courageously with an illness he knew to be fatal. He continued to practice and kept his office open until a few weeks prior to his death.

Dr. Levitt was a native of Petersburg. He received his education at the University of Virginia, both undergraduate and medical school. He served in the United States Army in World War II. He took his residency in Columbia, South Carolina and Hackensack, New Jersey. He was a diplomat of the American Board of Surgery, a member of the Fourth Medical District and The Medical Society of Virginia. He also was a diplomat of the Kiwanis Club and the Elks Lodge of Petersburg. He was former president of the Petersburg Medical Faculty.

Dr. Levitt will be remembered for his kindness and consideration for his patients as well as his fierce competition on the golf course.

He is survived by his wife, Shirley; a son, Dr. Louis Levitt of Kensington, Maryland; a daughter, Mrs. Barbara Steinfelt; two grandchildren, Alexa Levitt and Jeremy Levitt; a sister, Mrs. Herman Bassman.

Memory of him will linger in the minds of those who knew him.

## E. U. Wallerstein, MD

Dr. Emanuel U. Wallerstein, Richmond, died July 19 at his family's country home, Black Walnut Farm, in Clover. He was 87 years old and had retired from practice in 1964.

A graduate of the University of Virginia and the Johns Hopkins University School of Medicine, Dr. Wallerstein specialized in ear, nose and throat ailments and gained recognition for the development of instruments and procedures for removing foreign objects from the respiratory system. He was professor emeritus of otolaryngology at the Medical College of Virginia.

He had belonged to The Medical Society of Virginia for 59 years and belonged also to the Richmond Academy of Medicine, the American Academy of Ophthalmology and Otolaryngology, the American Laryngology, Rhinology and Otology Society, and the American College of Surgeons.

## Esmond D. V. Nicoll, MD

Dr. Esmond Douglas Vere Nicoll, Charlottesville, died July 2 at the University of Virginia Medical Center Hospital, where he had taught orthopedic surgery since 1951. He was 64 years old.

Born in Surrey, England, Dr. Nicoll studied and trained at Saint Bartholomew Hospital in England and in 1940 became a member of the Royal College of Surgeons. From 1941 to 1946 he served in the Royal Army Medical Corps in Italy and North Africa, receiving the Military Cross for bravery.

He had belonged to The Medical Society of Virginia since coming to this country and belonged also to the American Academy of Orthopaedic Surgeons and the American College of Surgeons.

# Memoir of M. H. Williams 1894-1981

*By William W. S. Butler, III, MD, Harry B. Stone, MD, and Richard S. Ownes, MD*

Dr. Mortimer Harry Williams died on January 31 of a massive myocardial infarction at age 87. Two years ago, he retired from his active practice of ophthalmology and otolaryngology.

His early life was in Poolesville, Maryland, where he was an active athlete, playing baseball, ice skating on the canals of the Potomac River, and quail and duck hunting in this farming community west of the District of Columbia. At Fork Union Military Academy, he was a scholar and star baseball player. He taught school in a small community on the south side of the Rappahannock River while he attended William and Mary College. He played semi-pro baseball while he was a medical student at the University of Maryland. He came to Roanoke for his internship at the Jefferson Hospital in 1921. His interest in ophthalmology and otolaryngology took him to the University of Vienna, Austria and Budapest, Hungary, where he completed his training before returning to Roanoke to live and to practice.

During World War II, he joined the US Navy and remained through the duration. At one point, he commanded the Navy Medical Unit at Cherbourg, France.

He was a past president of the Roanoke Academy of Medicine and a member of The Medical Society of Virginia, and, until recently, a member of many other national medical organizations. He had been on the active staff of the Community Hospital of Roanoke Valley and of the Roanoke Memorial Hospitals.

His wife, Frances Lee, was from Irvington in Tidewater, Virginia. After the war, his non-medical activities were divided between Roanoke and Irvington. He maintained an active interest in all sports and he played tennis regularly until he was 85. He knew the performance of all of the National Football League players and could recall vividly the best plays of any recent game. He had the facility to spin an interesting story about any episode of his long and active life.

He was a well-rounded sportsman and an avid bridge player. His many interests and athletic talents made him an extremely attractive gentleman who had close personal friends in many places. He was held in respect and regarded with great affection by a large following of patients many of whom were from families spanning several generations.

His wife died eight years ago. His older son, Dr. Mortimer Lee Williams, practices otolaryngology in Baltimore, Maryland, and his younger son, John McDonald Williams, lives and works in Roanoke. Six grandchildren and three great-grandchildren live throughout the United States.

He will be missed by all of us who knew him.

Prepared and published at the request of the Roanoke Academy of Medicine.

# VIRGINIA MEDICAL CLASSIFIED

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# Which Road to Cost Control, Competition or Regulation?

*This news story appeared in the Richmond Times-Dispatch of October 9, 1981, and is reprinted here by permission. It was written by Beverly Orndorff, who in 1975, before the House of Delegates at the annual meeting in Roanoke, received from The Medical Society of Virginia a Distinguished Service Award for his contributions to medical jouranlism.*

Unless some tough competition is introduced into the nation's health care system and costs are lowered as a result, health care is likely to become a highly regulated public utility because of increasingly higher prices.

That note was sounded [in Richmond] by a health field "think tank" official, who also conceded that he didn't know whether a strongly competitive health care market would really bring down costs.

At best, Dr. Walter McClure said, changing the present "high-style" medical care system to a more efficient, highly competitive "low-style" one is a long-term matter that would take a decade or more and require some drastic changes in attitudes and ways of doing things.

And it might not work even then, Dr. McClure warned, adding that he gives the "competition strategy" about a 40 percent chance of survival. "Competition is nowhere proven; no other nation has done it [and] it may well go down in flames here. But I think it's worth trying," Dr. McClure said at the final session of a two-day workshop on legislative strategies for containing health care costs in the state.

The workshop, held at the General Assembly Building, was sponsored by the Virginia Commission to Study the Containment of Health Care Costs and the National Conference of State Legislatures. More than 200 hospital, nursing home and other health field officials attended, along with legislators and state health officials. [Editors' Note: State Senator Edward E. Willey is chairman of the sponsoring Commission. The Medical Society of Virginia was represented at the workshop by Dr. J. Latane Ware of Richmond; he was one of a panel of four who discussed Dr. McClure's speech after it was given.]

Dr. McClure is former vice president of Interstudy a private, nonprofit policy research organization in Minneapolis, and is organizing a similar organization.

His analysis of the current, complex heatlh care system included a distinction between what he calls high-style medicine and low-style medicine. What that means is this: There is a tremendous variation in medical practices in this country, ranging from conservative to highly elaborate kinds of treatment. Such a spectrum, he said, is caused by the fact that medical practice is only partly a science and largely an art.

As far as the results are concerned, he said there is generally no difference medically between conservative practice styles and more elaborate ones. But as far as price is concerned, there can be tremendous differences.

Studies show, for example, that it costs half as much to care for an elderly person in Seattle, where medical practice is more conservative, than it does in Boston, where medical practice tends to be more elaborate. Hospital use for patients at the Mayo Clinic, which he described as using more conservative practices, is one-third less than

the national average. He cited studies indicating that there is no distinguishable difference in the outcomes for victims of uncomplicated heart attacks treated at home and those treated in intensive care units of hospitals.

An underlying cause of the high price of medical care, Dr. McClure suggested, is that medical practice styles in this country tend to be at the high-style end of the spectrum. That's because the nation has a system that essentially rewards a patient for using the high-style and punishes him for using the low-style practices, according to Dr. McClure. Insurance coverage, for example, "shields us from prices. It doesn't make any difference to us whether the care we get is high-style or low-style," he said, indicating that high-style medicine is what is often chosen because of that coverage.

And the problem is compounded in hospitals trying to attract doctors and patients by paying a keep-up-with-the-Joneses sort of game, acquiring the latest in fancy technological devices and adding beds, Dr. McClure said. Hospitals could reduce their census by one-third without harm to the health of their patients, he said, but that would also mean a one-third reduction in income.

The type of competition that's needed, he said, is the type that causes patients to be siphoned off from one sector of the health field by another, causing the losing group to alter its prices and practice styles.

That could be done by making consumers more sensitive to health costs by making them pay shares of the bill. That, in turn, would begin making patients question costs and asking if more low-style alternatives exist, said Dr. McClure, who described that mechanism as "technically clever but politically difficult."

Another possibility, he said, is the establishment of various kinds of health service plans through which consumers could obtain medical services by paying set premiums. Such plans, which could be established by doctors' groups in conjunction with hospitals and which could take various forms, would be in competition with one another in a locality, and consumers would have multiple choices.

Such a multiple choice of plans has existed in the Mineapolis-St. Paul area for more than 10 years, and it does appear hospitalizations under those plans have dropped significantly, Dr. McClure said. But there is a critical phase that such competition mechanisms pass through, and it's happening now in the Twin Cities area, he said. As traditional providers face dwindling patient loads, rather than lowering their charges, they increase them to make up for their losses, according to Dr. McClure.

But, if such a critical stage can be passed successfully, the continued pressure from a wide choice of plans should result in the eventual reduction of prices by the traditional providers, Dr. McClure told his audience.

—Beverly Orndorff

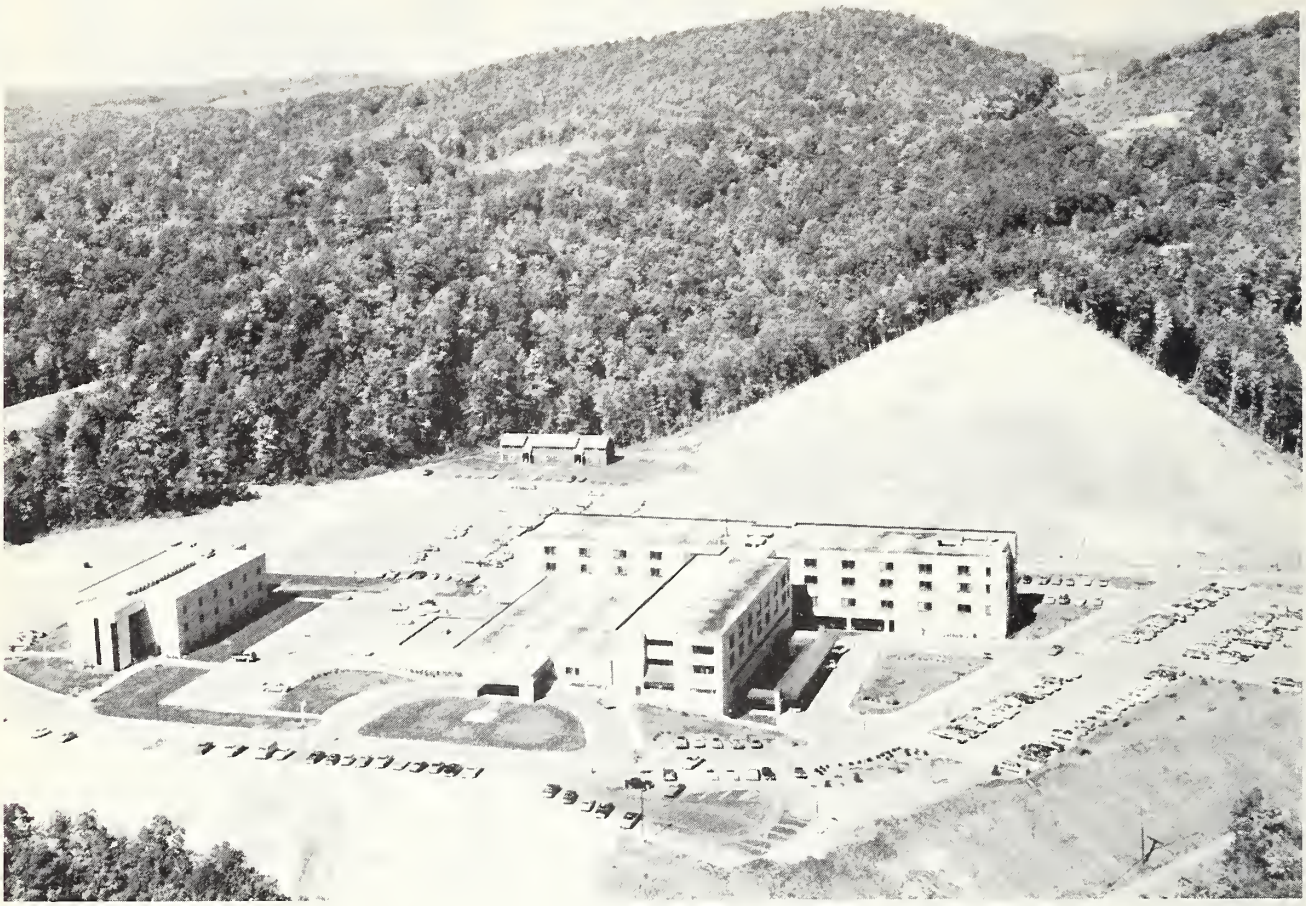
## A Telephone Twist in Portsmouth

A round-the-clock telephone answering service that operates out of a hospital has been established by the Portsmouth Academy of Medicine, and as of early October, 92 academy members had signed up, or about 50% of the practicing membership. Some dentists have joined, too, for "anybody in the healing professions in the Tidewater area can utilize the system," says Dr. Thomas H. Webb, who was chairman of the committee that planned the system.

Setting for the service is Portsmouth General Hospital, where, Dr. Webb points out, "the operators are familiar with the problems of reaching doctors and so can relay messages quickly and appropriately." There are a few other such hospital-based answering services over the country, Dr. Webb added, but this is the first in the Portsmouth area.

The service is directed by a nonprofit, non-stock firm sponsored by the academy, Professional Exchange of Tidewater, Inc. Dr. Webb is the president; Dr. Milton Golden, vice president/secretary; Dr. Faith Dajao, treasurer, and these join them to constitute the board of directors: Dr. Frank Brian Clare, Dr. Harry D. Cox, Dr. Frank S. Mancuso, Dr. Edward B. Ostroff, Dr. C. Dick Park, Dr. James V. Scutero, and Dr. Dilip K. Sarkar.

Dr. Abelardo A. Ruiz is president of the Portsmouth Academy.



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# LETTERS

## Cites Priorities in Reducing Cervical Subluxations

The article on late surgical reduction of cervical subluxations in the September issue[1] could be misinterpreted by physicians responsible for the initial management of patients with cervical spine injuries and traumatic myelopathy. The patients reported by Doctors Whitehill and Lennox had *incomplete* neurological lesions. A basic tenet in neurosurgery is that the *incomplete* traumatic myelopathy receives the utmost priority in accomplishing expeditious realignment, decompression and stabilization. Neither patient received appropriate initial management. Therefore, the delayed surgical reduction by the surgeons at the referral center was necessitated but would have been better accomplished initially. I would also hope that readers would not construe this premise to be applicable to the *complete* myelopathic lesion. The management of this tragic neurologic situation allows realistic clinical rationale regarding the priority of surgical intervention at any time.

I hope that the published article and this letter are instructive relative to the treatment priorities in the acute management of cervical spine injuries with traumatic myelopathy.

**B. L. Rish, MD**

304 Medical Tower
Norfolk VA 23507

1. Whitehill R, Lennox D: Late surgical reduction of cervical subluxations. Va Med 108:616-617, 1981

**Dr. Whitehill responds as follows.**

I agree with Dr. Rish's statement that the article

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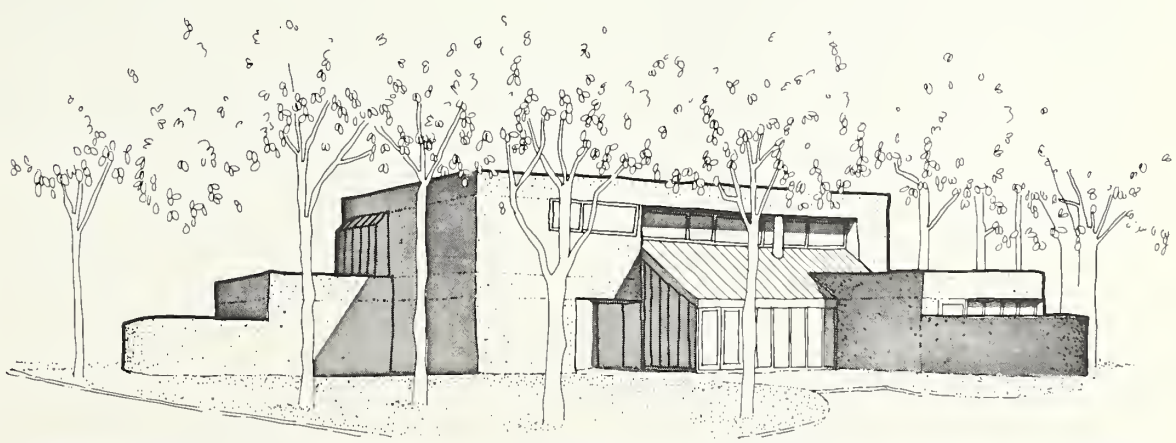

Charles L. Baird, Jr., M.D., Director, 205 North Hamilton Street, Richmond, Virginia 23221, (804) 359-9265.

pertains to non-acute cases. Certainly, as Dr. Rish stated, every effort is made in the acute case to achieve as near anatomical reduction as is possible, as soon as is possible. In most cases this is possible via traction techniques. In this way, i.e., anatomical reduction of deformity, the volume of the spinal canal is maximized and hence a decompression is performed acutely via closed techniques.

In addition, Dr. Rish is correct in stating that the complete spinal cord injury is much different from the incomplete; in the complete lesion there is no chance of functional recovery below the level of the injury. However, in some complete cases there are surgical indications. For example, in the second case in the above mentioned paper we really expected little neurological recovery from the extensive surgery performed but felt it was mandatory to allow the patient to position his head so that he could gaze forward. Obviously, without forward gaze it is impossible even to operate an electrically powered wheelchair safely.


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Acute exacerbation of chronic bronchitis caused by *H. influenzae**
*Though clinical improvement has been shown, bacteriologic cures cannot be expected in all patients with chronic respiratory disease due to *H. influenzae*.
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**Wornings Cyclacillin should only be prescribed for the indications listed herein.**

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**Precautions** Prolonged use of antibiotics may promote overgrowth of nonsusceptible organisms. If superinfection occurs, take appropriate measures.

PREGNANCY: Pregnancy Category B. Reproduction studies performed in mice and rats at doses up to 10 times the human dose revealed no evidence of impaired fertility or harm to the fetus due to cyclacillin. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, use this drug during pregnancy only if clearly needed.

NURSING MOTHERS: It is not known whether this drug is excreted in human milk. Because many drugs are, exercise caution when cyclacillin is given to a nursing woman.

**Adverse Reactions** Oral cyclacillin is generally well tolerated. As with other penicillins, untoward sensitivity reactions are likely, particularly in those who previously demonstrated penicillin hypersensitivity or with history of allergy, asthma, hay fever, or urticaria. Adverse reactions reported with cyclacillin: diarrhea (in approximately 1 out of 20 patients treated), nausea and vomiting (in approximately 1 in 50), and skin rash (in approximately 1 in 60). Isolated instances of headache, dizziness, abdominal pain, vaginitis, and urticaria have been reported. (See WARNINGS) Other less frequent adverse reactions which may occur and are reported with other penicillins are anemia, thrombocytopenia, thrombocytopenic purpura, leukopenia, neutropenia and eosinophilia. These reactions are usually reversible on discontinuation of therapy.

As with other semisynthetic penicillins, SGOT elevations have been reported.

As with antibiotic therapy generally, continue treatment at least 48 to 72 hours after patient becomes asymptomatic or until bacterial eradication is evidenced. In Group A beta-hemolytic streptococcal infections, at least 10 days' treatment is recommended to guard against risk of rheumatic fever or glomerulonephritis. In chronic urinary tract infection, frequent bacteriologic and clinical appraisal is necessary during therapy and possibly for several months after. Persistent infection may require treatment for several weeks.

Cyclacillin is not indicated in children under 2 months of age.

*Patients with Renal Failure* Cyclacillin may be safely administered to patients with reduced renal function. Due to prolonged serum half-life, patients with various degrees of renal impairment may require change in dosage level (see DOSAGE AND ADMINISTRATION in package insert).

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| Mild or Moderate Infections | 250 mg q.i.d. | 50 mg/kg/day q.i.d. |
| Chronic Infections | 500 mg q.i.d. | 100 mg/kg/day q.i.d. |
| *Otitis Media* | 250 mg to 500 mg q.i.d.† | 50 to 100 mg/kg/day† |
| Skin & Skin *Structures* | 250 mg to 500 mg q.i.d.† | 50 to 100 mg/kg/day† |
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*Dosage should not result in a dose higher than that for adults.
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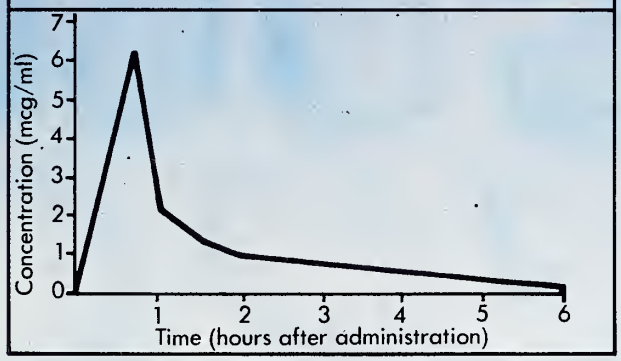


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*Bosed on T° ½ volues for single orol doses of 500 mg cyclacillin tablet and 500 mg ampicillin copsule. Doto on file, Wyeth Laboratories.

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# UP FRONT WITH THE PRESIDENT

The profession of the practice of medicine in this country is one of which Medical Society of Virginia members are and should be extremely proud, for it provides the best medical care in the world. No prominent figure of our modern society has left this country for medical care, but many world figures have come here when they have needed care.

What is it about medical care in this country that makes it such a mecca? Certainly technological advances are a factor; nowhere else do so many of these advances occur first as in this country.

A much less recognized factor in the excellence of our medical care is the freedom of choice exercised between patient and physician. The essence of our system is the "one-on-one" confrontation, private and confidential, that allows mutual selection or rejection between patient and physician. If the initial contact is agreeable, then from this builds a rapport of mutual trust and satisfaction. The end result is patient compliance with the physician's recommendations and advice, and as we are coming to recognize more and more, without patient compliance there is no chance for successful treatment. If at any time this rapport breaks down, either party is free to terminate the relationship and the patient can begin building this all-important interchange anew. Thus the search for individual compatability between patient and physician continues freely, leading ultimately to patient compliance—the necessary goal for successful medical care.

Freedom of choice between patient and physician has become unique to this country as more medical care systems become socialized. To socialize medical care is to make it more efficient and "cost-effective", in modern bureaucratic terms, by introducing controls and rationing. It is natural and proper this freedom-of-choice system should linger in our society, where a free-enterprise capitalistic system still flourishes. Patients are used to freedom of choice of merchandise in a free marketplace, and this carries over into their medical care.

**"We must believe in ourselves."**

Let us examine the concept of quality versus economy. Patients gravitate toward the best possible quality for the cheapest price in the marketplace. But would it not be fair to say the people in our country consider quality before economy? The expression "cheap merchandise" is derogatory, indicating poor quality rather than praiseworthy economy. Poor quality means less durability and shortened length of useful life. In a free market, the best quality product is sought for a given amount of money. At the same time, since most people do not have limitless financial resources, reality dictates a compromise whereby everyone cannot have the most costly product, no matter what the quality. There is a point at which further improvement in quality looses practical value—a pencil encrusted in diamonds still serves only as a pencil, despite the cost.

It has become evident that medical care in socialized systems is less popular and more costly. In order to become more efficient, individual choice has to be sacrificed for regimentation assignment, rationing, and restriction of patients and physicians. No mutual selection exists, so any rapport is random, and this has lead to reduction in compliance. We will not discuss the hiding of the true cost behind use of tax revenues to pay for the system, or the resulting over-utilization of the system, comparable to our first-dollar-coverage problem.

The above discussion leads to the concept of competition in medicine. To many it seems to mean removal of ethical principles prohibiting advertising. To others, it seems to mean opening up the practice of medicine to other deliverers of healing arts, of different training and experience than the traditional study of medicine in approved medical schools. There are many more vague concepts held by many more people than space allows mentioning. Why cannot the idea of competition in medicine remain what it has always been—an individual physician striving, within the ethical constraints of his profession, to give to each individual patient the best quality care he can, by maintaining and improving his individual knowledge and skills. We have already implemented the means to do this with CME, self-assessment and performance review for the technological part. Patient demand for interest, com-

passion and empathy will influence the art of medical care. Those physicians who embrace these facts most successfully will be the most effective and sought-after deliverers of medical care—that is, provided bureaucratic controls and rationing do not interfere with this free selection. Equally true, if a physician feels he can "encrust his service in diamonds", he can and should be pushed out of the mainstream of care.

So why do so many physicians seem so guilt-ridden over the idea that ours is a poor system for caring for the sick? They point out that so many "bad apples" exist in our profession. The failure of the PSRO and HSA indicates that our profession is far more cost effective than Congress and the then Department of Health, Education and Welfare believed. At least 90% of our profession is performing conscientiously, with another 5% simply unaware of their problems. So why should we do penance for only the 5% remaining? Even though we, as physicians concerned about quality, are responsible for the majority of medical care expenditures, we should not assume any guilt for the cost of each individual item. The only cost we control is our professional fee. Why condemn the entire profession for the few? Why such a negative approach when the vast majority deserve our collective praise? Why project such an image of shame and guilt when the facts demand projection of professional pride in our performance? Indeed, to appear inferior and weak is to invite attack, but to do so without basis is even worse.

What is it to be not a professional, as in professional football, but a member of a profession? Being a member of the medical profession is being a part of a whole body of persons engaged in a calling that requires "specialized knowledge and often long and intensive academic preparation, confirming to technical or ethical standards," according to Webster's seventh *Collegiate Dictionary*. It has been said that a member of a profession self-corrects, once he is aware of the need to change. Thus he remains one who seeks knowledge for the purpose of self-improvement. Along with this must go a self-confidence and a belief in his innate self-control, control of the selfish human desires of self-gain and self-preservation, so that he can render reasonably selfless service to his patients.

In order to be able to function in this selfless service mode, we must trust society to reward us to the degree we are deserving. Indeed, we must behave in such a manner as to persuade society to trust us. This is a very nebulous and risk-ridden, two-way street. What is really being said is that if we remain voluntarily bound in practice by our ethics and behave truly as members of a learned, serving calling, openly before all, we will indeed be trusted. To do this we must render ourselves accountable, be able to show our stewardship of the vast billions we cause to be spent upon medical care. We must earn the trust of our patient public.

In these modern times, we must also take into account another element intruding into this duet of patient-physician. This third element, in the form of a third-party insurer, government or both, is not directly aware of the amount or quality of the services rendered, as is the patient as direct recipient. Therefore, the accounting process must be of a form to satisfy this interloper. This very complex development is what has changed medicine so drastically in recent years. However, the basic element is the same—patient satisfaction, because ultimately the patient controls the third element through votes, taxation and premiums.

Nothing really worthwhile comes easy, a trite but true saying. Most of us entered the medical profession to serve. We get at least part of our satisfaction from meeting our patient's needs. If we develop this aspect of our actions, our profession will triumph, and I say we must. If we uphold the quality of our professional services in a sociocentric fashion, behaving as ethically constrained professional people, our human needs will be satisfied, because the worth of our services will be recognized.

Finally, in order to be trusted by all the involved elements of society—patient, insurer, legislator—we must have belief in ourselves, both, individually and collectively as a profession. We must perceive the need to serve in our professional motivation and emphasize and strengthen it. We must be willing to be examined and evaluated by our peers and accept constructive criticism in order to render our medical care stewardship accountable. From this will evolve stronger mutual respect and trust among ourselves. The summation will be a conviction of the integrity and quality of our profession radiated by each individual member. Then we will fearlessly defend our profession because of our collective pride in our proven achievements and documentation of its true nobility.

**H. C. Alexander, III, MD,**
President,
The Medical Society of Virginia

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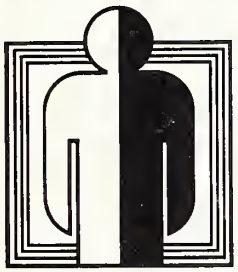

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# MEETINGS ABOUT MEDICINE

**January 14-16**
**Update 1982—Management of Asthma and COPD** (American College of Chest Physicians), *St. Petersburg, Florida.* 17 credit hrs. Fee: Members, $200; non-member MDs, $150. Dale E. Braddy, AMCP, 911 Busse Highway, Park Ridge IL 60068, (312) 698-2200.

**January 23**
**2nd Annual Ophthalmology Conference: Pediatric Ophthalmology for the General Ophthalmologist** (Fairfax Hospital and Northern Virginia Academy of Ophthalmology), Hilton Hotel, *Springfield.* 5 credit hrs. Fee: $50. Ophthalmology Conference, Fairfax Hospital Association, 8001 Braddock Rd., Springfield VA 22151, (703) 321-4255.

**January 23-30**
**Infectious Disease in Clinical Practice** (University of California at San Francisco), *Snowmass at Aspen, Colorado.* 21 credit hrs. Fee, $275. University of California School of Medicine, Extended Programs in Medical Education, Room 569-U, San Francisco CA 94143, (415) 666-4251.

**January 25-27**
**Annual Postgraduate Course of the American Diabetes Association,** *Orlando, Florida.* ADA, 2 Park Ave., New York NY 10016.

**February 4-6**
**Hypertension 1982: Practical Management Considerations for the Physician in Practice.** (American College of Chest Physicians), *Sanibel Island, Florida.* 16 credit hrs. Fee: members, $190; non-members MDs, $220. Department of Education, ACCP, 911 Busse Highway, Park Ridge IL 60068, (312) 698-2200.

**February 8-11**
**Alton D. Brashear Postgraduate Course in Head and Neck Anatomy** (Medical College of Virginia), *Richmond.* 40 credit hrs. Fee: $250. Dr. Hugo R. Seibel, Dept. of Anatomy, Medical College of Virginia, Richmond VA 23298, (804) 786-9530.

**February 9-11**
**Management of the Critically Ill Patient** (American College of Emergency Physicians), *Wintergreen, Virginia.* Fee: $75-$250. Gwen Messler, PO Box 317, Highland Springs VA 23075, (804) 737-9433.

**February 11-13**
**Nuclear Cardiology: Methods and Applications** (Johns Hopkins School of Medicine), *Baltimore.* 20 credit hrs. Fee: $250. Susan Bavaro, Turner 22, 720 Rutland Ave., Baltimore MD 21205, (301) 955-6046.

**February 12-14**
**Dermatology and Internal Medicine—Advances in Diagnosis and Management** (Medical College of Virginia), *Hot Springs, Virginia.* Kathy E. Johnson, Box 48, MCV Station, Richmond VA 23298, (804) 786-0494.

**February 21-26**
**13th Family Medicine Review** (University of Kentucky College of Medicine), *Lexington, Kentucky.* Frank R. Lemon, MD, (606) 233-5161.

**February 26-28**
**Regional Meeting of the Virginia Chapter, American College of Physicians, and the Virginia Society of Internal Medicine,** *Alexandria.* James M. Moss, MD, 1707 Osage St., Alexandria VA 22302.

**February 28-March 4**
**18th Annual Radiology Postgraduate Course: Pediatric Radiology** (Medical College of Virginia), *Williamsburg.* 18 credit hrs. Fee: $330 for MDs, $165 for residents. Office of CME, Box 48, MCV Station, Richmond VA 23298, (804) 786-0494.

### A CURE FOR CONFLICTS

To prevent the conflicts in meetings dates that occur now and then, the Medical Society of Virginia Continuing Education Office is a referral point for those who are scheduling meetings.

Toward this worthy goal, would you please notify the CME office by phone or letter as soon as your meeting date is settled. Do not wait for formulation of program plans and such; this register will refer only to the *dates* of meetings.

The address of the CME office is 4205 Dover Road, Richmond VA 23221. The phone number: (804) 353-2721. Dr. Kinloch Nelson is CME director for The Medical Society of Virginia, but the register is kept by Mrs. Evelyn Stockmar; ask for her when you call.

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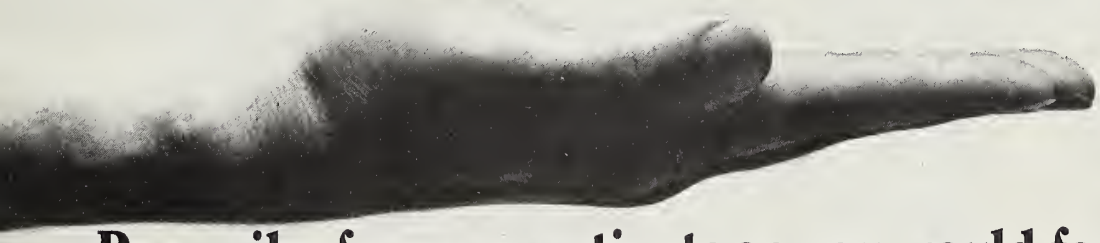

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# The Annual Meeting: Commotion and Camaraderie

FROM its setting on the waterfront in Norfolk, the Medical Society of Virginia's 1981 annual meeting was in a perfect position to make waves and proceeded to do just that.

A flotilla of reporters and cameramen bustled in to cover the speeches of Virginia's Commissioner of Health, Dr. James M. Kenley, and the nation's Secretary of Health and Human Services, Richard Schweiker.

In the reference committee hearings, such controversial issues as mandatory CME and specialty society representation in the House touched off flares of debate.

Every now and then the program committee launched another scientific session. If you took the total CME cruise, you logged 21 hours.

Moored at the center of ebb and flow were the double-feature exhibits, 42 commercial and 15 scientific. They filled a ballroom and splashed over into the adjoining promenade.

A new MSV skipper, "Chris" Alexander, was piped aboard. Harold Williams was set on course for next in the presidential line. There was a continuous commotion over the coming retirement of the Society's long-time navigator, Bob Howard. And on the decks of the Good Ship Auxiliary, Gail Neal passed the command to Marguerite Hannon.

But it was the camaraderie that generated the meeting's strongest currents. All hands took home with them the joys of old ties renewed and new friendships formed. And that, of course, is what organized medicine is all about.

TRADITIONAL to the annual meeting is the presidential address of the Society's President at the first session of the House of Delegates. This year Dr. Percy Wootton, whose speech can be found on page 793 of this issue, invited Commissioner Kenley to share that spotlight with him. It was an apt innovation, for Dr. Kenley had news of the effects on the state's health services of federal spending cuts.

He began by emphasizing that, contrary to the prevalent opinion that all government agencies are fat, the Health Department is, in fact, "already lean. We are already experiencing deficits, and the cuts in federal appropriations for health services will hit our bone and muscle."

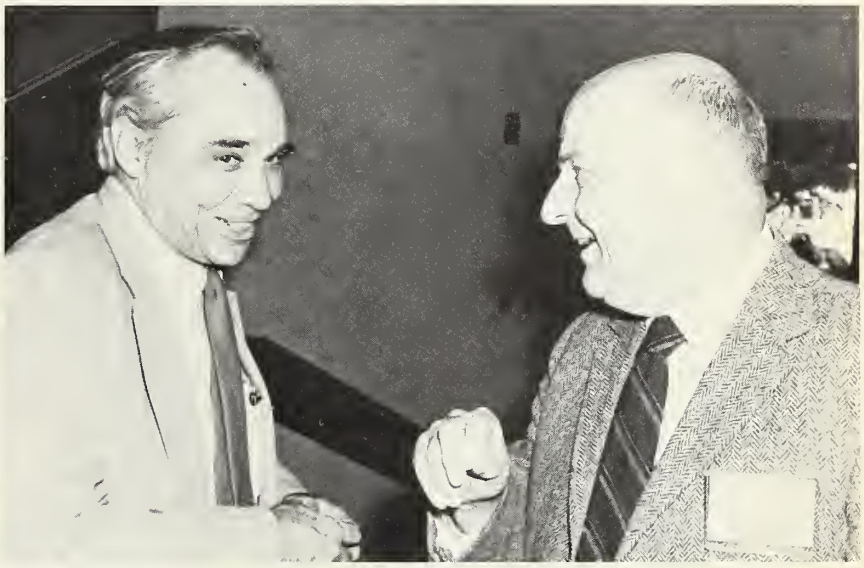
For fiscal year 1982, he said, federal funds for preventive medicine in Virginia have been cut from $3 million to $2.6 million. For maternal and child health, the reduction is from $8.8 million to $6.2 million.

Moreover, he warned, "the cuts in these programs are minor com-

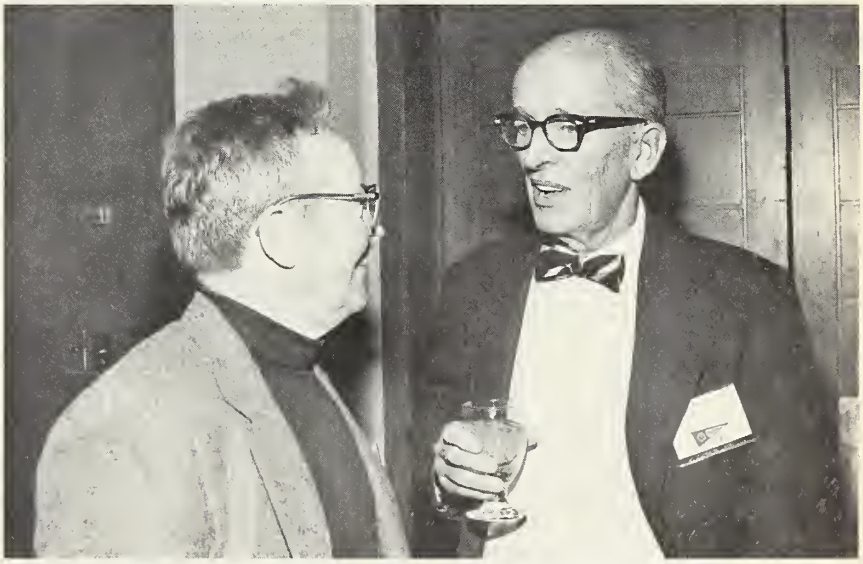
▲ Dr. Augustine W. Lewis of Aylett

▲ Dr. Herbert A. Wood and Dr. Allen A. Futral, Jr., both of Winchester

Dr. Oscar W. Ward, Jr., Hampton ▲



▲ Dr. W. Stanley Jennings, Chesapeake, and Dr. Donald F. Fletcher, Jr., Atlantic



▲ Dr. Benjamin H. Inloes, Jr., Williamsburg, and Dr. Alfred R. Garnett, Norfolk

pared to the problems of Medicaid." Because of a $15-million deficit this year, the department has proposed elimination of 55,000 Medicaid beneficiaries.

And, he added, "further budget cuts could force us to limit some absolutely basic public health services. Many local health departments have been providing direct medical care. This may have to be reevaluated, and retained only where it is not otherwise available in the community."

Then he asked for the help of Virginia's physicians.

"The problems of the poor will not go away," he said. "There will be a shifting of responsibility, to local governments, to hospitals, to physicians. We will have to go back to providing 'charity' care.

"It is up to you and me," he concluded, "to prepare for these changes in order to avoid undue suffering among Virginia's poor."

At the second session of the House, the delegates answered Dr. Kenley's plea by passing with resounding approval a Richmond Academy of Medicine resolution urging physicians "to reaffirm their commitment to, and responsibility for, the health care of our state's medically needy citizens."

THE resolution committing the Society's members to providing medical care to the poor sailed through the reference committee and the House without demurral, but other issues provoked spirited debate.

- Elimination of mandatory continuing medical education was the goal of a resolution from the Southside Medical Society. It reflected dissatisfaction with the bylaw, passed by the House in 1979, that makes a certain amount of CME a requirement for Society membership and is enforced through a reporting system. As can be noted in his presidential address, President Wootton himself advocated abandoning the requirement.

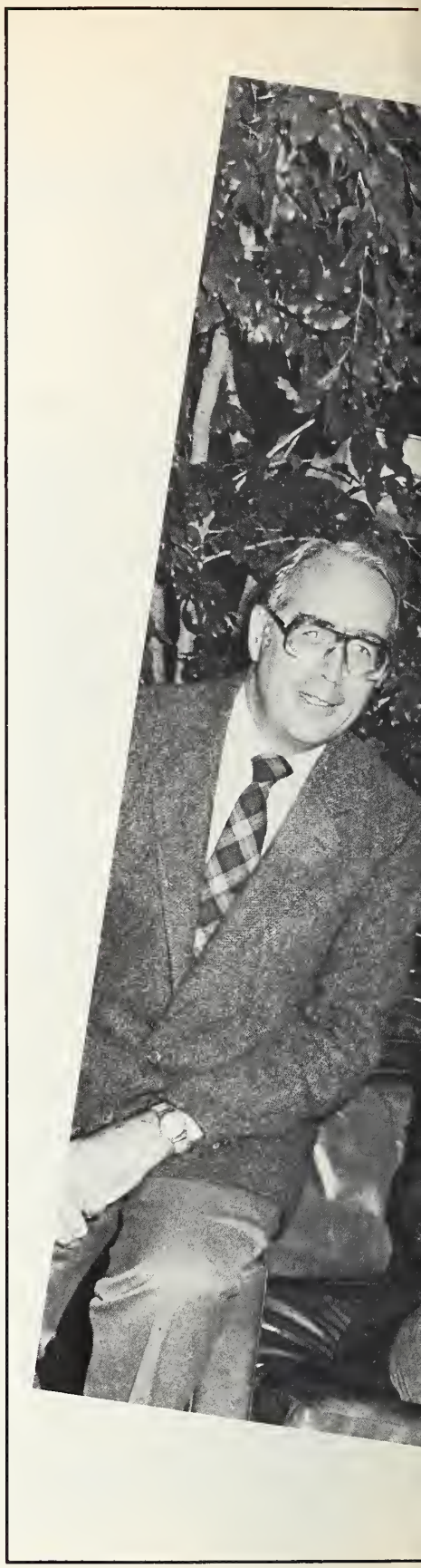
But the reference committee was not willing to recommend relinquishing the bylaw. Its requirements, the committee observed, have been suitable, the adverse effects on the membership minimal, and the potential for improving professional performance remains favorable.

The House agreed. Mandatory CME stays on the books.

- The long-argued prospect of specialty society representation in the House finally is to become a reality. Agreeing with the recommendation of the reference committee, the delegates voted "yes" to an amendment to the bylaws that will add to the House's membership one representative from each of 22 designated specialty societies. Each representative must be a Medical Society of Virginia member, the bylaw stipulates.
- The delegates also agreed to establish a program to assist the recovery and rehabilitation of Virginia doctors with problems of mental or physical illness and alcohol or drug abuse. Recommendation for the program came from a special committee that has been studying the subject.

The House's action called for a new MSV committee to consult with the state Board of Medicine in defining and implementing the program. To avoid the popular but negative term "impairment," the plan is to be called "Physician Health and Effectiveness Program."

- In another action, the delegates directed the Society's Pharmacy Committee to develop a voluntary program aimed at controlling abuse of prescription drugs. Importantly, the program would remove amphetamines and methaqualones from pharmacists' shelves. Physicians would continue to prescribe these drugs as needed



▼ The Medical Society of Virginia's officers for 1981-1982: from left, Dr. Russell D. Evett, Norfolk, Third Vice President; Dr. Harry C. Kuykendall, Alexandria, Second Vice President; Dr. Harold L. Williams, Newport News, President Elect; Dr. H. C. Alexander, III, Roanoke, President; Dr. Richard L. Fields, Fairfax, Speaker of the House; Dr. C. Barrie Cook, Fairfax, First Vice President; and Dr. William H. Barney, Lynchburg, Vice Speaker.

but would notify their patients that the prescriptions would not be filled until 48 hours after they are received by the pharmacy. That would give the pharmacist time to check back with the prescribing doctor, if necessary, and to obtain the drug from the wholesaler. The process is designed not only to discourage drug abuse but to reduce the potential for theft of these drugs from pharmacies.

The House directed that aid be sought in implementing the program from the Virginia Pharmaceutical Association, the state Board of Medicine and the state Board of Pharmacy.

Bob Howard's minutes in Va Med's January issue will give a detailed account of all House actions.

At the VaMPAC banquet, where Secretary Schweiker was the center of attention, the ballroom glared white under a barrage of television lights and a crowd of cameramen jostled for photographic advantage, while at a long table an impressive array of print media reporters bent intently over their notes as the secretary talked.

He was a smooth, aggressive speaker, and he was tuned in to the 250 listening VaMPAC members and spouses. When, early on, he stated, "Increased federal interference does not reduce medical costs" his audience answered with reverberating applause.

He was referring, he explained when it was quiet again, to the past 20 years, in which "the role of government in financing health care has distorted the health marketplace."

"For decades," he said, "American health policy was based on the idea that our resources were unlimited." Inflation also has contributed to swelling expenditures for medical care, he observed, and "no health-care policy can work unless we attack the root causes of inflation." But, despite sweeping changes this year in the federal role in medical care, moving "America out of the economic swamp it's been stuck in may take time," he warned.

"Electing Ronald Reagan president didn't cure all the ills of the past 20 years overnight. It just made the cures possible," he continued. "Even winning the tax and budget battle this summer didn't complete the cure.

"Every good physician knows that lasting cures take time."

His department is helping toward that cure, he said, with renovations designed to shrink the federal role in medical care. Among the programs tagged for elimination is federal health planning, which, he said, "has not been nationally effective in holding down costs. In fact, evidence shows it has inhibited the market forces that we need for lower prices."

▼ **Commissioner Kenley (right) with attentive audience, med students Sam Barton and Vaughan Hall**

Consolidation of his department's 25 categorical programs into seven "block grants" will allow states greater flexibility to "tailor programs to meet varying local needs," he prophesied, and to reduce duplication of services and administrative costs.

Also among his department's reforms is a new government priority emphasizing "wellness," not sickness, in health policy, he revealed.

"Wellness can sharply lower health costs without the spending of millions of tax dollars," he asserted, adding that Americans will live longer and more happily if they do not smoke cigarettes or drink large amounts of alcohol, if they eat nutritiously and sleep and exercise adequately. "The point is," he went on, "that what we can do for ourselves and to ourselves can be a powerful influence on our own health."

Then he praised the physicians listening to him. "As a result of your professional skills," he said, "we've already developed space-age medical technology. Now the job is to bring America's health policy into the 1980s, to match the

▲ Dr. C. Kinsey Glover, Fredericksburg

◀ Dr. James E. Comer, Jr., Roanoke; Dr. E. Randolph Trice, Richmond; and Dr. Ray A. Moore, Jr., Farmville

◀ Mrs. Gervas S. Taylor, Jr., Mrs. Albert L. Roper, and Mrs. Donald E. Sly, all of Norfolk

Secretary Richard Schweiker at the VaMPAC banquet; on the dais, Dr. M. Pinson Neal, Jr., Mrs. Gerald C. Burnett, and Dr. Harold L. Williams

excellence of our medical science."

VaMPAC Chairman W. Leonard Weyl introduced Schweiker. Also on the dais were Mrs. Weyl; Dr. and Mrs. Wootton; Dr. Harold L. Williams, who two days later was named MSV President Elect, and Mrs. Williams; VaMPAC treasurer Gerald C. Burnett and Mrs. Burnett; Auxiliary President Mrs. M. Pinson Neal, Jr., and Dr. Neal; and Secretary Schweiker's counterpart in Governor Dalton's cabinet, Jean Harris, MD, Secretary of Human Resources for Virginia.

As chairman of the nominating committee, Dr. Barbara A. Mella presented the slate of new officers, councilors, and AMA delegates at the second session of the House. Without exception, the nominees were quickly endorsed by the assembled delegates.

The new officers were photographed for this issue in the company of Dr. H. C. Alexander, III, who, as President Elect, automatically acceded to the Society's leadership.

Two new councilors were elected—Dr. James A. Shield, Jr., Richmond, 3rd District, and Dr. Leon I. Block, Falls Church, 10th District, and two new vice councilors—Dr. William T. Tucker, Richmond, 3rd District, and Dr. Donald S. Thorn, Annandale, 10th District.

Thanks to an increase in the number of Medical Society of Virginia members who also belong to the American Medical Association, the Society's allotment of delegates to the AMA House was recently increased from four to five. To fill that new slot the House promoted Past President "Len" Weyl from alternate delegate to delegate—the same Dr. Weyl who put together the VaMPAC/Schweiker coup shown at the left.

On the alternate delegate side, Dr. George M. Nipe, also a Past President, was given the assignment vacated by Dr. Weyl, and Dr. Charles M. Caravati, Jr., Richmond, was named the fifth alternate delegate.

James L. Moore, Jr., was elected to succeed Bob Howard as the Society's leading professional, while Bob was elevated to elder statesman status with the sonorous title of Executive Vice President Emeritus.

The new officers were installed by Dr. Joseph F. Boyle, chairman of the AMA Board of Trustees, who earlier in the same session addressed the House. He praised "the dedication of Virginia physicians to the preservation of the traditional freedoms of medicine," and cited independent, fee-for-service practice as central to these freedoms.

Describing the current reorganization of the AMA's staff and structure to effect greater efficiency and economy, he predicted that the Association "will be looking more and more to the state societies for support." And although he noted with appreciation the increase in the number of Virginia physicians who belong to both state and national organizations, he pointed out that one-third of all MSV members still do not belong to the AMA and urged a greater effort to enroll them at the national level.

For Bob Howard, retiring after 32 years, the meeting was a terrible time. This quintessentially modest man was praised and patted and partied at every turn, and the strain on his psyche was severe. Publicly he grinned and bore it, but privately he was seen to hit the bottle—the antacid bottle, that is.

Presents were part of the outpouring of love and thanks. From the membership came a deluxe trip to England and Scotland. Bob and his wife, Jenny, were to pick the itinerary, President Wootton said,

as he handed over a big bunch of travel brochures.

At their annual luncheon, the Society's past presidents presented him with a book of letters from 21 Medical Society of Virginia presidents. They were personal messages, full of affectionate memories of their presidential years and of gratitude for the Executive Vice President's unfailing kindness to them. As a frontispiece for the book, Nancy Weyl contributed a pencil drawing that captured with perfect fidelity Bob's beatific smile. It is reproduced on page 805 of this issue.

From the Norfolk Academy of Medicine came a tiny color television set, one of those wizard little portables that can be plugged into an automobile outlet. The Auxiliary added a 1908 revolver to his prize-winning collection of antique firearms. And the Omni Hotel offered a classy golf bag and putter. As the hotel's pretty young sales manager, Margaret Dills, presented the gift at the second session of the

**▲ First prize winner: Dr. Robert J. Cohen, Richmond (at right above), for a scientific exhibit illustrating the provocative testing of hysterical seizures with saline infusion and suggestion. With him, Dr. Henry C. Graybeal, Christiansburg.**

**◀ Second prize winner: Dr. T. J. Arganese, Norfolk (pointing), for an exhibit on lower extremity coverage of chronic wounds. With him, Dr. John O. Boyd, Jr., Goodview.**

House, she leaned forward and planted an emphatic kiss on Bob's ruddy cheek. The cheek flushed even ruddier, and the delegates exploded in laughter and applause.

To Dr. Thomas W. Murrell, Jr., Richmond dermatologist and Past President of The Medical Society of Virginia, went the 1981 Physician Award for Community Service. Dr. Wootton presented the plaque signifying the honor at the Saturday night banquet.

Cited were Dr. Murrell's energetic commitment to an impressive record of Good Works. He leads as its president the Christian Children's Fund, whose international headquarters are in Richmond; through this fund flow millions and millions of dollars—$46 million this year alone—to help needy children all over the world. And a major local philanthropy claims him as president, too; it is the William H.-John G.-Emma Scott Foundation, whose gifts have built chapels and gymnasiums at Virginia schools

YSTERICAL SEIZURES: THE USE OF SALINE INFUSION AND SUGGESTION AS A PROVOCATIVE TEST IN 41 PATIENTS
Robert J. Cohen and Cary Suter
Department of Neurology, Medical College of Virginia Campus, Virginia Commonwealth University, Richmond Virginia

**▶ Third prize winner: Dr. Bruce D. Baird, Roanoke (far right), for a scientific exhibit on parathyroid autotransplantation in a community hospital. With him, Dr. J. Hayden Hollingsworth, Roanoke.**

and sent Virginia youngsters to school as scholarship students.

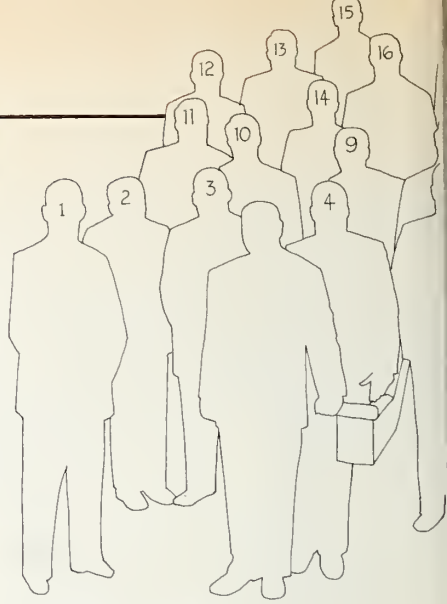
Education is a major theme of Dr. Murrell's volunteer contributions; for the Episcopal Diocese of Virginia, he has served on its board of church schools, and he has been a trustee of three individual schools: St. Christopher's School, Richmond; Christ Church School, Middlesex County; and St. Margaret's School, Tappahannock. For his parish of worship, St. Stephen's Church, he has been a vestryman, and the Valentine Museum in Richmond has benefited from his vigorous support as a trustee.

Fittingly, much of Dr. Murrell's extracurricular activity is devoted to projects with kinship to medicine. He founded the Capitol Area Health Planning Council, was for many years a member of its board of directors, and served as its president in 1970-1972. To Blue Shield of Virginia, he has given generously of his time and intelligence, first as a long-time member of the board of directors, then, from 1978-1981, as chairman of the board.

A graduate of the University of Virginia School of Medicine, Dr. Murrell conducts a private practice and is clinical professor of dermatology at the Medical College of Virginia. He has been president not only of The Medical Society of Virginia but of the Richmond Academy of Medicine and the American Dematological Association.

THE fifteen scientific exhibits found an appreciative audience, none more so than the judges to whom was given the formidable task of awarding first, second and third prizes for excellence. The exhibits were of such uniformly high caliber, the judges said, that they were hard pressed to pick the winners.

After prolonged deliberation, the judges settled the blue ribbon on an




**To say farewell to Bob Howard, who stands at center front in the picture opposite, twenty Medical Society of Virginia presidents turned out for the annual past presidents luncheon. Their names are listed below in the order of their presidential service; the numbers key their positions in the picture.**

**6. Dr. James P. King, Radford, President 1956**
**1. Dr. Harry C. Bates, Jr., Arlington, 1958**
**3. Dr. Walter P. Adams, Norfolk, 1959**
**4. Dr. Russell V. Buxton, Newport News, 1962**
**8. Dr. Fletcher J. Wright, Jr., Petersburg, 1963**
**18. Dr. Richard E. Palmer, Alexandria, 1964**
**2. Dr. K. K. Wallace, Norfolk, 1967**
**9. Dr. Thomas W. Murrell, Jr., Richmond, 1968**
**11. Dr. F. Ashton Carmines Newport News, 1969**
**5. Dr. James M. Moss, Alexandria, 1971**
**10. Dr. Wiliam S. Hotchkiss, Norfolk, 1972**
**14. Dr. Carl E. Stark, Wytheville, 1973**
**7. Dr. John A. Martin, Roanoke, 1974**
**16. Dr. William R. Hill, Richmond, 1975**
**12. Dr. Raymond S. Brown, Gloucester, 1976**
**13. Dr. W. Leonard Weyl, Arlington, 1977**
**15. Dr. William J. Hagood, Jr. Clover, 1978**
**17. Dr. Charles E. Davis, Jr., Norfolk, 1979**
**19. Dr. George M. Nipe, Harrisonburg, 1980**
**20. Dr. Percy Wootton, Richmond, 1981**

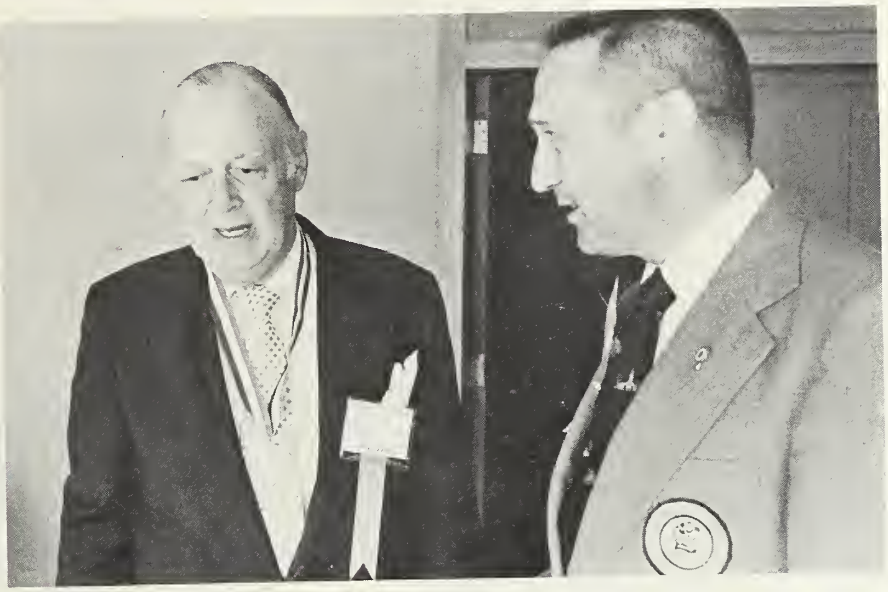
**▲ Past Auxiliary Presidents at lunch together: from left, Mrs. Walter A. Porter, Hillsville, President in 1959-1960; Mrs. William Nash Thompson, Stuart, 1964-1965; and Mrs. Harold L. Williams, Newport News, 1975-1976.**

▲ Dr. Emmett C. Mathews, Dr. Charles M. Caravati, Jr., Dr. J. Latane Ware, and Dr. Edward A. Zakaib, all of Richmond

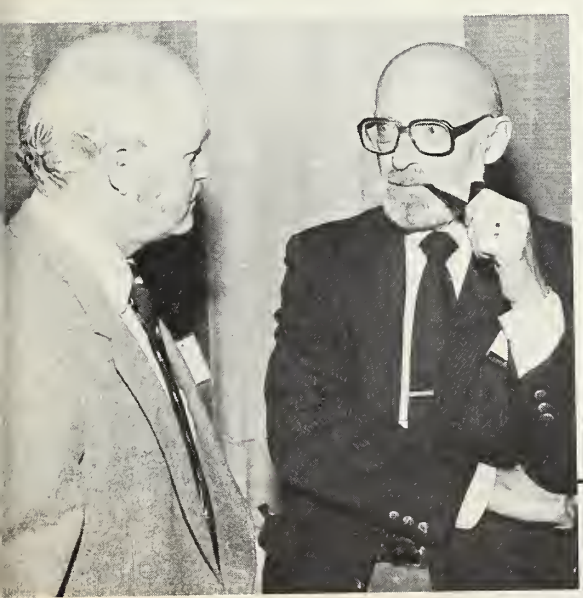
▲ Mrs. M. Pinson Neal, Jr., Auxiliary President 1980-1981 (left), and her successor, Mrs. John Hannon

▲ Dr. W. T. Thompson, Jr., Richmond (right) with Virginia Medical's award and Sandoz rep John Parke

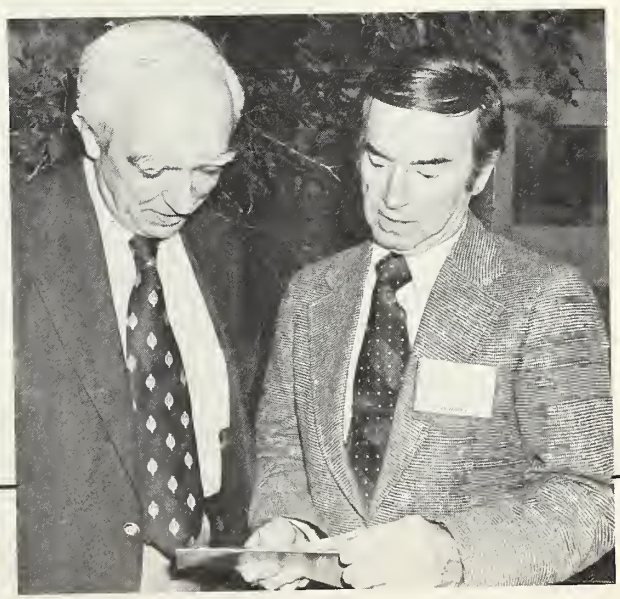
▲ Dr. James M. Peery, Richlands, and Dr. Joshua P. Sutherland, Grundy



▲ Dr. Thomas W. Murrell, Jr., Community Service Award winner (left), and President Percy Wootton



▲ Dr. Joseph L. Crosier, Petersburg, and Dr. Donald L. Brummer, Richmond



▲ Dr. Alfon B. Mosca and Dr. Frank M. Ripberger, both of Charlottesville

exhibit attended by Dr. Robert J. Cohen and coauthored by Dr. Cary Suter, both of Richmond. It was titled " 'Hysterical Seizures': The Use of Saline Infusion and Suggestion as a Provocative Test in 41 Cases."

From a Norfolk plastic surgery team came the second prize winner. Titled "Lower Extremity Salvage in Wounds Refractory to Conventional Therapy," it was the work of Dr. J. B. McCraw, Dr. G. P. Maxwell and Dr. T. J. Arganese, and it was attended throughout the meeting by Dr. Arganese.

Parathyroid transplantation as experienced at Roanoke Memorial Hospitals was the topic of the exhibit awarded third prize. Dr. Bruce D. Baird attended the exhibit; his cohorts in the work were Dr. Carl J. Kite, Dr. Robert E. Berry, Dr. Carl H. Bivens and Dr. Newell Falkinburg. All are from Roanoke.

The judges especially commended for its handsomely expressed scholarship an exhibit by Dr. W. Levi Old, Jr., Norfolk, titled "Historical Events in Virginia Surgery."

DESPITE a blustery wind from the ocean, the golf buffs were out in force on the Redwing Park course in Virginia Beach. Winner of the Challenge Cup, symbol of the Society championship, was the VaMPAC treasurer mentioned earlier, Dr. Gerald C. Burnett of South Boston, who tallied the lowest gross. Close behind him were Dr. John E. Morgan of Roanoke, second low gross, and Dr. Richard J. Hart, Jr., Falls Church, third.

Low net prize-winners were Dr. John A. Martin, Roanoke, first; Dr. William V. Tynes, II, Norfolk, second; and Dr. Mann T. Lowry, Montpelier, third.

The tennis tourney was streamlined to mixed doubles only and was played on the courts at Old Dominion University. Dr. and Mrs. John F. Denton, Warrenton, took first honors, and Dr. and Mrs. Robert H. Anderson, Alexandria, won second prize.

TO VIRGINIA MEDICAL went a prize, too. At the House of Delegates' second session, Editor W. T. Thompson, Jr., received from Sandoz Pharmaceuticals rep John Parker a framed certificate attesting to the journal's first prize in the 1981 Sandoz Medical Journalism Awards. "For excellence in design and editorial content," reads the certificate. A $500 check was to accompany the certificate, but, Parker related in some embarrassment, it hadn't reached him in time for the ceremony.

The award was a repeat; VIRGINIA MEDICAL also placed first in the 1977 competition.

"Tee" Thompson is retiring as VIRGINIA MEDICAL's Editor at the close of this year. The new Editor, appointed by President Alexander,

▼ **Dr. Eugene D. Brand, Wicomico Church (extreme right), at the Wyeth booth with reps Don Snipes and John Palya.**

is to be Dr. Edwin L. Kendig, Jr. More about that in the January issue.

On page 803 of this issue you will find an editorial written with Dr. Thompson's characteristic felicity, and here is the poem he contributed to this saga of the 1981 meeting. It was written, he prefaced, with apologies to Dr. Poe:

*'Twas many and many a friend*
*we met at the Omni by the sea,*
*And many a pearl we caught in*
*our net at the meeting of MSV.*
*And many absent members must*
*be sorry yet,*
*And perhaps their sad eyes may*
*still be wet,*
*For those who were there got all*
*they could get*
*At this meeting of MSV*
*That was designed for you and*
*for me.*

—ANN GRAY

*Photographs by William Abourjilie*

▲ Dr. Meyer I. Krischer, Norfolk (right), at the Rorer exhibit with rep Roy Haag.

▲ At the Searle booth, Dr. Roger D. Cornell, Clifton (right), and rep Linwood Watts.

▼ Dr. William J. Reardon, Falls Church (right), and Peoples Drug rep Nicholas Marotta.

▼ Dr. Robert G. Edwards, Franklin (left), and Cindy Unger at the Robins booth.

# Presidential Address: Dr. Wootton Commends and Recommends

Percy Wootton, MD, *Richmond, Virginia*

"I will remember always, with friendship and admiration, these fine physicians, who guard the health of Virginia's citizens and the welfare of Virginia's medical profession."

TO SERVE as your President this year has been a great honor and privilege and most gratifying personally. In the course of my duties I have visited fifteen of our component medical societies—the "grass roots," the foundation, of organized medicine in Virginia, and I have seen firsthand the splendid job our Medical Society of Virginia members are doing in their home communities. I will remember always, with friendship and admiration, these fine physicians, who guard the health of Virginia's citizens and the welfare of Virginia's medical profession.

It is they, largely, who have boosted The Medical Society of Virginia's membership to an all-time high at last count of 6,478 members. In tandem, those of our members who also belong to the American Medical Association have grown in number, so that beginning with the AMA meeting in June 1982, Virginia will be represented in the AMA House by five delegates and five alternates, instead of the previous four. But this is not the time to live on past laurels. We must keep up the good work by continuing to bring the new, young doctors of Virginia into the Medical Society of Virginia fold. I here appoint each of you a one-person membership committee to use your seasoned authority to bring in more members, so that the Society can continue to grow in infuence in Virginia.

And I encourage this House to adopt the recommended amendments to the bylaws giving students full MSV membership. These student members, who should be brought into organized medicine now, during their formative professional years, may also become members of the AMA and will then be counted toward our achieving more AMA delegates.

To broaden the base of representation in our House of Delegates, I urge you to adopt the bylaws amendment establishing representation in this House of Virginia's specialty societies, and I believe that the delegates elected by the specialty societies should not be seated in a special section, as some have suggested, but in our ten congressional district sections according to their home component societies. It simply makes more sense that way, in my view.

We are now completing the second year of mandatory continuing medical education for membership in The Medical Society of Virginia, and it is a

Presented by Dr. Wootton as the Presidential Address before the House of Delegates on October 22, 1981, at the 134th Annual Meeting in Norfolk.

Photograph by Joe Colognori

PERCY WOOTTON, MD, PRESIDENT, 1980-1981, THE MEDICAL SOCIETY OF VIRGINIA, AND HIS WIFE, JANE PENDLETON WOOTTON, MD

thorn in the side of many of our members. When, in July 1980, Council commissioned a study of continuing medical education in Virginia, only 64% of our membership responded to the study's questionnaire, and only 40% of our membership indicated that they prefer some sort of continuing medical education requirement for membership in this Society. It is my belief that we all complete many more hours of education than is required by the present mandatory system, and I abhor mandatory requirements in general because I believe our members are dedicated to the care of the sick and it is ludicrous to ask them to sign the continuing medical education pledge. Moreover, many staff hours at headquarters are spent documenting these requirements, hours that could be placed elsewhere to better purpose. I recommend emphatically that this matter be re-examined by a reference committee, and all opinions, pro and con, be debated.

Since the Reagan administration has developed a theme returning health planning to the states, and with the prospective demise of the Health Systems Agencies, Virginia physicians will have an opportunity to participate significantly in health planning. At the September meeting of Council I appointed an ad hoc committee called Health Planning and Government Relations. I hope this committee will act quickly to devise a system whereby the voice of the medical profession will be heard distinctly when health planning is undertaken. Generally, I hope this committee will work toward heath planning on the local level; the expertise for such planning is available in most communities, and the local people know their problems better than anyone else. Specifically, there is an urgent task, and it is this: Even though its federal funds will be cut off in June 1982, the State Health Coordinating Council (SHCC) will in all likelihood be continued with state financing. This Council should have physician representation, just as the State Board of Health and the State Board of Medicine do, and that representation should come about in the same way, i.e., The Medical Society of Virginia should have the power to nominate a certain number of candidates for the Governor's appointment. I hope this committee will work with the Medical Society of Virginias Legislative Committee and the Virginia's Commissioner of Health to achieve a system of local health planning.

Much of the work of The Medical Society of Virginia is carried out by committee, and I congratulate our committees on the fine job they have done this year and thank them profoundly for the many hours and many miles they have racked up in performing their duties. Of note is the Vanguard Committee's report on the pro-competition approach to medical insurance; it is yet another strong Vanguard Committee contribution, and I commend it heartily to your readership. And I recommend that the status of the Vanguard Committee be changed from that of a standing committee to a regular committee appointed by the President, so that future presidents can better relate this committee's work to the new state health planning picture.

In the compelling area of professional liability insurance, a new approach to rates has been developed by your Insurance Committee in cooperation with the St. Paul Insurance Companies. Its formal name is "retrospective total return pricing." Three features distinguish this program: 1) all investment income is explicitly considered in the pricing process. 2) The St. Paul Companies' profits are limited to a reasonable maximum. 3) All excess profits are returned retrospectively, with interest. I recommend to the Society that we initiate in the coming year a Society-sponsored education program for the prevention of liability suits. We would do well emulate the superb program developed by the Medical Association of Georgia in conjunction with St. Paul; Georgia physicians who complete that course are eligible for a reduction in their malpractice premiums. The Medical Society of Virginia staff has begun work on a similar program, and I strongly urge its completion and implementation.

That energetic arm of our Society, the Virginia Medical Political Action Committee, won top awards for membership growth in 1980, but this year recruiting has lagged, and it is imperative that the Medical Society of Virginia membership strengthen its support of this key committee. Not all of us can be individual political activists but all of us can join VaMPAC, as active or sustaining members. It's not too late to join this year! Be a big spender and join the PAC 250, too! Help VaMPAC work toward the best possible political climiate in which to practice medicine! Due to changes in the law, it is now possible for VaMPAC to be more closely allied with The Medical Society of Virginia, and for this reason VaMPAC's Board of Directors requested that the organization's office be moved into Medical Society of Virginia headquarters on Dover Road. The request was approved by Council, and the move should occur in the near future. I believe it will benefit both organizations.

Once again our journal, VIRGINIA MEDICAL, won first place for excellence of design and editorial content in the Annual Sandoz Medical Journalism Awards competition. Of course, this excellence has been recognized by the membership all along, but

we are happy to have others agree with us. I congratulate Dr. W. T. Thompson, Jr., our Editor, and Mrs. Ann Gray, our Managing Editor, for their superb work. I am saddened to report that, despite my repeated pleas, Dr. Thompson has resigned, citing other pressures, notably two lively grandchildren whose company he wants to enjoy to the fullest. He has been a distinguished Editor; his departure is a decided loss.

I would be remiss if I did not congratulate our Auxiliary on its many achievements this year, which are especially gratifying to me since I am an Auxilian myself. The Auxiliary has grown in membership and in scope, and so it has requested an office at Medical Society of Virginia headquarters and clerical help for its presidents. This will bring greater efficiency and effectiveness to this busy branch of The Medical Society of Virginia.

For the past two years the Society has appropriated $6,000 as a presidential allowance, or stipend, in recognition of the time necessarily spent away from practice in the performance of presidential duties. This system seems to be working very well, and I urge that it be continued. Wth trepidation, however, I go against the recommendation made both by the five previous presidents and the Long-Range Planning Committee that the President receive $100 per day for each day or fraction thereof spent on Society business. I agree that all actual expenses should be reimbursed, and I feel that present allowance of $6,000 is probably too low, but I am opposed to the $100 per diem allowance because I think most of our presidents would be reluctant to charge the Society for a portion of a day. And keeping track of the days involved would be an added burden for the President. I urge that the present system be continued.

There comes in each generation one person whose worth is recognized by all, who stands tall as a leader, worker, and an inspiration. Such a person has served this Society well as a member of many committees and a councilor, as First Vice President, as chairman of the Finance Committee for many years, and as AMA alternate delegate and delegate and chairman of the delegation. I think it fitting and proper that such a person be honored by this House, and I therefore recommend that honorary active membership be conferred on Dr. Michael A. Puzak in recognition of his long and dedicated service to The Medical Society of Virginia.

In serving as President, one learns that we have the best state staff in the nation. It has been a wonderful experience to work with each of these pros and to benefit from their wise counsel, and I salute now our Executive Vice President for his long and faithful service, which will come to an end when he retires at the close of this year. I cannot in a brief time account all of the virtues and accomplishments of the man who is known as "Mr. Medical Society of Virginia" throughout the state and is highly regarded as a master by all of his peers across the nation. I am sure you will follow my recommendation that Robert I. Howard be elected Executive Vice President Emeritus.

The Long Range Planning Committee composed of the five most recent presidents reviewed many applications for the position of Executive Vice President of The Medical Society of Virginia. They personally interviewed several applicants and recommended the election of our own James L. Moore to this position. I enthuisastically concur with their selection and recommend that James L. Moore be elected Executive Vice President at this meeting.

I thank most sincerely all of the committee chairmen, committee members and members of Council for their help and hard work. They have made this a successful year for The Medical Society of Virginia. The Society is in excellent shape, and I know it will continue to prosper under the vigorous leadership of Dr. H. C. Alexander, III.

I will always cherish the memories of this year. Thank you, thank you, thank you.

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The Medical Society of Virginia
PROCEEDINGS

# Minutes of Council

A meeting of the Council of The Medical Society of Virginia was held in Richmond at Society headquarters on Saturday, September 12, 1981.

*Members Present:* Dr. Percy Wootton; Dr. H. C. Alexander, III; Dr George M. Nipe; Dr. Harold L. Williams; Dr. Richard L. Fields; Dr. William S. Burton; Dr. Frederick K. McCune; Dr. Charles M. Caravati, Jr.; Dr. Charles H. Crowder, Jr.; Dr. Glenn B. Updike, Jr.; Dr. William W. S. Butler, III; Dr. Robert Green, Jr.; Dr. Nicholas G. Colletti; Dr. J. Thomas Hulvey; and Dr. C. Barrie Cook.

*Others Present:* Dr. James B. Kenley, Commissioner, State Department of Health; Dr. W. T. Thompson, Jr., Editor, *Virginia Medical;* Dr. William H. Barney, Vice-Speaker; Dr. James A. Shield, Jr., Dr. Lawrence V. Marshall, Dr. Robert L. Keeley, Dr. John A. Owen, Jr., Dr. Ira J. Green and Dr. Leon I. Block, Vice-Councilors; Dr. Michael A. Puzak and Dr. F. Ashton Carmines, AMA Delegates; Dr. W. Leonard Weyl, Dr. Raymond S. Brown, Dr. William J. Hagood, Jr. and Dr. Arthur A. Kirk, Alternate AMA Delegates; Mrs. M. Pinson Neal, President, The Medical Society of Virginia Auxiliary; Dr. Harry Kuykendall, Chairman, Vanguard Committee; Dr. Carol Shapiro, representing Prince William County Medical Society; Dr. William S. Hotchkiss, Secretary, Board of Trustees of AMA; Dr. William Eagles, representing South-Central PSRO; Dr. Robert Morton, Chairman, PSRO Liaison Committee; Mr. John DiNardi, Executive Director, Virginia Statewide PSR Council; Dr. William D. Mayer, President, Eastern Virginia Medical Authority; Dr. George Carroll, Secretary, State Board of Medicine; Cee Ann Davis, President, UVA Student Medical Society; Craig Derkay, President, MCV Student Medical Association; Doug Douglas, representing VaMPAC; Mr. Allen Goolsby, Attorney for the Society; Mr. Edward DeBolt, Society Consultant, and Ms. Carole Cones.

Following the invocation by Dr. Carmines, Dr. Wootton introduced Council's guests of the day. Also introduced was Mr. Richard G. Immel, a new member of the Society staff.

**VaMPAC**

Dr. Weyl brought Council up-to-date concerning recent activities of VaMPAC. He noted that 1981 was quite a political year with elections being held in November. Noted was the fact that a very attractive brochure encouraging membership in VaMPAC has been prepared and would soon be forwarded to non-members. He went on to say that membership figures were not as encouraging as they should be and every effort would be made to obtain greater participation

It was pointed out that President Reagan's Chief Health Advisor, Richard S. Schweiker, Secretary of Health and Human Services, would be the guest speaker at VaMPAC's annual banquet on October 22.

Dr. Weyl advised Council of a resolution which was approved during the last meeting of the VaMPAC Board requesting office space at Society headquarters. He pointed out that this is being done in a number of other states and AMPAC now has its offices in AMA headquarters.

The question of space was discussed at great length and it was noted that this could present some problems. After further discussion, Dr. Burton moved that should space be available after a study of headquarters facilities, an office be provided to the VaMPAC organization. The motion was seconded and carried.

**Membership**

Dr. Crowder presented a very comprehensive report of the Membership Committee which contained three main issues for Council's consideration: A) compliance mechanism with continuing medical education requirements for membership; B) intern, resident, fellow Membership; c) statewide membership campaign, The Medical Society of Virginia—American Medical Association.

Referring to Section A., Dr. Crowder advised Council that the Commission on Continuing Medical Education has performed a great service to the Society and the availability of CME programs over the state was excellent. He pointed out that the Society is in its second year of the program and only a few of our members have not complied with the requirements. It was noted that the Chairman, working with the Coordinator of CME, has made every effort by way of telephone calls and personal correspondence to contact those few members who have not compiled.

Dr. Crowder pointed out that a change in Section A(e) of the report had been modified by the Committee as follows:

> *e. Any member so terminated shall have right of reconsideration by the Membership Committee through written request delivered within 30 days of the termination notice date to the Executive Vice President for the purpose of considering information not previously available to the Committee.*

Following further discussion, it was moved by Dr. Cook that Section A of the report as amended be approved. The motion was seconded and carried.

Dr. Crowder then turned his attention to Section B of the report. It was noted there were over 1800 residents and house staff in the state and less than 30 held membership in the Society. A house staff survey of 434 physicians was recently completed and only 4% indicated an interest in joining The Medical Society of Virginia.

The question of a statewide resident organization vs. membership on the local level was discussed at great length along with delegate representation. After further discussion, Dr. Alexander moved to amend Section B(d) of the report to read as follows:

> *d. Training status physicians who would become direct members of The Medical Society of Virginia might be represented in the House of Delegates by affiliation of their membership with the local component for representation only.*

The amendment was seconded and carried.

Dr. Wootton stated that Section B of the report recommends certain changes in our bylaws and should be referred to the Bylaws Committee. This referral was approved by Council.

Section C of the report would have The Medical Society of Virginia organize a statewide campaign for membership in the Society and AMA. It was noted that the Society now has approximately 6500 members and there are approximately 8500 practicing physicians in the state. The possibility of a staff person working through the presidents of our local societies was discussed as one means of recruitment. Following further discussion, Section C of the report was approved.

Dr. Wootton took this opportunity to announce that the Society had reached its goal of 4,000 members in AMA. This means the Society will be entitled to a fifth AMA delegate and alternate, beginning with the June meeting in 1982.

**Auxiliary**

Mrs. M. Pinson Neal, President of the Auxiliary, presented a most interesting progress report. She advised Council that the Auxiliary had received three membership awards and was working very hard in gaining new auxiliary chapters over the state. She pointed out that the AMA-ERF campaign had been a tremendous success and over $32,500 had been contributed to our three medical schools.

Mrs. Neal went on to say that this had been a very busy year for the Auxiliary although it had encountered many administrative problems. She pointed out that 18 state medical societies currently provide office space and secretarial services and expressed the hope that The Medical Society of Virginia would be in a position to assist the Auxiliary along these same lines.

The question of financial assistance to the Auxiliary was discussed and the Executive Vice President advised Council that somewhat over $1,000 was currently being expended. After further discussion, Dr. Cook moved that the Society provide such administrative services to the Auxiliary as may be needed. The motion was seconded by Dr. Alexander and carried.

**Eastern Virginia Student Medical Society**

Dr. Wootton advised Council that a student medical society has been organized at the Eastern Virginia School of Medicine and Council has been requested to issue a charter granting component status. It was noted that a slate of officers has been elected and the student society is in compliance with our bylaws.

Dr. McCune moved that such a charter be granted and the motion was seconded and carried.

**Health Planning**

Dr. Wootton stated that due to the fact HSAs might probably be phased out, a special committee composed of representatives of the Society, Virginia Hospital Association, Virginia Chamber of Commerce, Farm Bureau Federation and Virginia Manufacturers Association has been formed. Dr. Nipe pointed out that the Committee has met on three occasions to discuss the feasibility of establishing a special committee on health planning. A subcommittee has also been appointed to consider making some definite recommendations to the Governor.

Dr. Wootton advised Council that he had recently appointed an ad hoc Committee on Health Planning and Government Regulations. He noted that the Committee would be working very closely with Dr. Kenley and chaired by Dr. Nipe. Other members would include Dr. Glenn B. Updike, Jr., Dr. Russell Evett, Dr. Richard L. Fields, and Dr. Wyatt S. Beazley, III.

**Board of Medicine**

Dr. George Carroll, Secretary, State Board of Medicine, presented a report on matters of mutual interest. He suggested the possibility of a joint meeting of the Legislative Committee of the Board of the Society's Legislative Committee. It was pointed out that the Board will implement a new biannual registration procedure beginning in 1983, and registration will be conducted by date of birth.

Dr. Carroll also stated that the Board had received a report from Dr. Buxton concerning the Society's proposed impaired physician program. Mentioned was the fact that in the past, 98% of the Board's time was spent on matters pertaining to licensure and now it devotes almost that amount of time on disciplinary matters alone. Council was advised that during the past year 324 disciplinary cases had been reviewed and 193 of these had been carried over to this year. It was further pointed out that the Board has 130 new cases and of these combined figures, 108 cases have been closed.

Dr. Carroll reminded Council that nominations from the 7th, 8th and 9th Districts for membership on the Board (five-year terms) would be voted on during our Annual Meeting. The physicians whose terms expire are eligible for reappointment.

**Vanguard**

Dr. Kuykendall reported that the Vanguard Committee had met the previous evening and presented a report from the Committee's procompetition subcommittee. He went on to say the Committee did not recommend the report and it was only submitted for educational and informational purposes.

Dr. Kuykendall advised that the last two pages of the report mainly dealt with HR-850 and although many problems existed in the bill, the Committee thought that alternatives might be considered. AMA has voiced strong opposition to the bill—particularly since HHS would have the power to regulate private health insurance and the Federal Government could preempt state laws. Noted was the fact that the Secretary of HHS would have tremendous authority relating to this type of legislation.

After further discussion, Dr. Alexander moved the Committee be commended for its dedicated effort to control the cost of medical care in this state. The motion was seconded and carried.

Council was then advised of FTC legislation in the Congress which carries 48 sponsors. It was pointed out that this bill could jeopardize the health care delivery system and after further discussion, Dr. Crowder moved to support AMA's effect on FTC legislation and contact our representatives in this regard. The motion was seconded and carried.

**Dedication of Conference Room**

Dr. Wootton read the following resolution which was unanimously approved by our House of Delegates in November, 1978:

**WHEREAS, in the recent addition to the headquarters building of The Medical Society of Virginia there is a large and handsome conference room, as yet not designated by name, and**

**WHEREAS, our esteemed Executive Vice President who, for more years than most of us can recall, has served the Society and its members most zealously and efficiently, therefore be it**

**RESOLVED, that the House of Delegates of The Medical Society of Virginia designate this room the Robert I. Howard Conference Room.**

Dr. Wootton stated that in keeping with the

resolution, it was indeed a great honor to present to Robert I. Howard, Executive Vice President, a handsomely engraved, brass nameplate which will be placed over the door to the conference room at the conclusion of this meeting. Council so indicated its approval with a standing round of applause for Mr. Howard.

**Bylaws**

Dr. Wootton called on Dr. Caravati to discuss the report of the Bylaws Committee. Dr. Caravati noted that the Committee recommended changes to give medical students full membership rights in the Society, to add the Eastern Virginia Student Medical Society as component student society, and to provide for specialty society representation in the House of Delegates. He explained the basis on which the Committee selected the specialty societies that would be recognized. The Committee was unanimous in its recommendations. Dr. Caravati also noted that because of requirements imposed by the State Corporation Commission, it was necessary to modify the report of the Bylaws Committee to incorporate all of the changes in the bylaws. He also recommended that the Society pursue legislation to eliminate the procedural problems that had been encountered with the State Corporation Commission.

After discussion on motion duly made and seconded, it was unanimously resolved that the report of the Bylaws Committee as so modified be accepted, and it was further agreed that the Society should seek legislative changes to eliminate the procedural problems being encountered with the State Corporation Commission.

**PSRO**

Dr. Morton presented a proposal which would have the Virginia Professional Standards Review Foundation review the necessity and appropriateness of care rendered Medicaid patients in this state. He went on to say that Congress has enacted legislation that delegates the responsibility of review of all Medicaid patients in hospitals and nursing homes to state Medicaid agencies. It was noted that the Foundation feels this proposal is supportive of the AMA and the Society's position that peer review is a necessary and appropriate function of the profession but that it should be de-federalized.

It was pointed out that initially the Health Department wished a proposal for long-term care review only, but with new legislation, it is asking that the proposal address hospital review as well as skilled and intermediate care facility review.

Dr. Morton further advised Council that the federal share of Medicaid funding will be decreased over the next few years and the state will have to pay for any review of Medicaid patients. It was pointed out that the state does not have the capability of on-site review of all Medicaid patients and nursing home patients are currently using 49% of the state's Medicaid funds. The question was raised as to whether the Health Department would seek help in the Medicaid review process and Dr. Kenley advised Council that the program definitely needed assistance.

After considerable discussion, Dr. Burton moved that the Medicaid review of hospitals and nursing homes be referred to Dr. Wootton's new Committee (Health Planning and Governmental Relations).

Dr. Fields proposed an amendment whereby Council encourage Dr. Morton to proceed with his proposal until a report had been completed by the new Committee. The amendment was seconded and carried.

Dr. Butler then offered a substitute motion which would have The Medical Society of Virginia support the Virginia Professional Standards Review Foundation proposal for implementation of a quality assurance program. The motion was seconded by Dr. McCune. After further discussion, Council voted and Dr. Butler's substitute motion carried.

**Annual Meetings**

Council was reminded that Colonial Williamsburg is holding annual meeting dates for 1982, 1984, 1986 and 1988. With the specialty groups becoming more involved in our annual meetings, space in the Conference Center presented something of a problem. In order to find a solution to the problem, a meeting was held with representatives of Colonial Williamsburg and Council was advised that in the future, the Auxiliary would probably be requested to use the Cascades for its annual meeting. Mrs. Neal stated that she was very aware of the facilities and it would suit the Auxiliary's needs. Along this same line, it was pointed out that some of the specialty groups, in all probability, may have to utilize outlying facilities—such as Fort Magruder, etc.—for some of their functions.

After further discussion, Dr. Butler moved that the Society continue to hold its annual meetings in Williamsburg on an even year basis. The motion was seconded by Dr Fields and carried.

**Annual Meeting Press Coverage**

Carole Cones advised Council that press coverage during last year's annual meeting had been a

tremendous success. She noted that several members of the press had only planned to spend a few hours at the meeting but, due to the excellent programs and activities, considerable more time was given to our coverage. She went on to say that, in all probability, we could expect coverage from newspapers in Virginia Beach, Newport News, Norfolk and Roanoke.

**Virginia Hospital Reciprocal**

The Society was contacted in May by representatives of the Virginia Hospital Insurance Reciprocal for the purpose of obtaining support and endorsement of its program to insure Virginia physicians against professional liability. It was pointed out that the Hospital Association as well aware of our long-standing relationship with the St. Paul Companies and the fact that our program is doing exceptionally well. It believes, however, that competition would be good for all parties.

Following further discussion, Dr. Alexander moved to refer the matter to the Insurance Committee for its consideration and a report back to Council at a later date. The motion was seconded and carried.

**Pituitary Gland Removal**

Dr. Wootton called attention to Dr. Wiecking's letter of May 1 to Virginia medical examiners with reference to the pituitary law which became effective July 1. The bill was strongly supported by the Society and it was felt that this matter was brought to Council for informational purposes only. Council so concurred and no action was taken.

**Mileage for Committee Members**

Mr. Osburn reported that several committee members have asked for a clear-cut policy with reference to the payment of mileage in connection with committee meetings. A question was raised as to whether any member had submitted such a request in the past and Council was advised none had been received. Brought out was the fact that our bylaws clearly state that expenses of members of any committee may be paid upon the recommendation of the chairman of such committee and the endorsement of the President. In view of that section in the bylaws, no action was taken by Council.

**Operating Room Nurses**

Dr. McCune advised Council of a public hearing to be held on September 23 with reference to rules and regulations for the licensure of hospitals in Virginia. He expressed concern that licensed registered nurses were not required in supervisory positions in operating and/or recovery rooms. During the ensuing discussion, it was brought out that a requirement of this nature could place a burden on the smaller hospitals throughout the state.

Following further discussion, Dr. Crowder moved that Council reaffirm a previous action of the House concerning this matter which places the decision of nursing personnel on local hospital boards and medical staffs. The motion was seconded by Dr. Cook and carried.

**Child Abuse**

Dr. Wootton reported that the Society has been approached by the Young Lawyers' Section of the Virginia Bar Association to provide financial assistance in printing a brochure having to do with child abuse and neglect. It was pointed out that this brochure would be mailed to physicians, school teachers and judges throughout the state to increase their awareness of this problem.

Council was advised that the Committee on Child Health is fully aware of this project and recommends that Council authorize funds to help defray the printing of the brochure. After further discussion, Dr. Green moved that the Society contribute an amount not to exceed $500 for this project. The motion was seconded and carried.

**Drunk Driving**

Dr. Wootton called attention to a resolution submitted by the Virginia Chapter, American College of Emergency Physicians, on drunk driving. The resolution calls for Society support and is as follows:

**WHEREAS, drunk drivers will kill 500 Virginians this year and cost her citizens 250 million dollars, and**

**WHEREAS, members of the Virginia Chapter, American College of Emergency Physicians, as observers of much of the carnage, are disappointed that maximal educational, legislative, judicial, or enforcement efforts have not been made in Virginia, be it therefore**

**RESOLVED, that the Governor of Virginia be respectfully requested to appoint a special task force to guide implementation of appropriate measures, suggested by the National Highway Traffic Safety Administration and others, designed to reduce this unnecessary burden on our citizens.**

It was moved by Dr. Nipe that Council endorse the resolution and the motion was seconded and carried.

**Standard Claim Forms**

Dr. Wootton advised Council that the Society had recently received several complaints with reference to the new HCFA-1500 claim form. He pointed out that this form will soon replace the 1490 form currently used by many carriers. Dr. Wootton expressed concern that the Society was not contacted for its input.

Dr. Fields moved the matter of claim forms be referred to the Insurance Committee for its consideration and the motion was seconded and carried.

**Negotiations**

Council was advised that AMA has discontinued its negotiations program although training courses are still available from former staff members. It was pointed out that Virginia Commonwealth University also offers courses on negotiations—probably along the same lines of the former AMA program.

Dr. Hulley, Chairman of our Negotiations Committee, has recommended the Society sponsor a course in Virginia and consider bearing the cost. He further recommends that participants be limited to 30 and that members of his Committee have priority. It was learned that the basic cost of $1,500 would cover the faculty fee for a 1½ day presentation. The $1,500 figure would not include travel expenses for the faculty or any additional cost such as meal functions, course materials, etc.

After further discussion, Dr. Alexander moved that Council endorse the concept of negotiation seminars but that any member of the Society wishing to attend would bear his own expense. The motion was seconded and carried.

There being no further business, the meeting was adjourned.

James L. Moore, Jr., Secretary

APPROVED:
**Percy Wootton, MD, President**

---

A meeting of the Council of The Medical Society of Virginia was held in Norfolk at the Omni International on Thursday, October 22, 1981.

*Members Present:* Dr. Percy Wootton; Dr. H. C. Alexander, III; Dr. George M. Nipe; Dr. Harold L. Williams; Dr. Richard L. Fields; Dr. William S. Burton; Dr. Frederick K. McCune; Dr. Charles M. Caravati, Jr.; Dr. Charles H. Crowder, Jr.; Dr. Glenn B. Updike, Jr.; Dr. William W. S. Butler, III; Dr. Robert C. Green, Jr.; Dr. Nicholas G. Colletti; Dr. J. Thomas Hulvey; and Dr. C. Barrie Cook.

*Others Present:* Dr. Anthony J. Munoz, 2nd Vice President; Dr. James B. Kenley, Commissioner, Department of Health; Dr. William H. Barney, Vice-Speaker; Dr. William H. Sipe, Dr. Russell D. Evett, Dr. James A. Shield, Jr., Dr. James V. Scutero, Dr. Robert L. Keeley, Dr. John A. Owen, Jr., Dr. Ira J. Green and Dr. Leon I. Block, Vice-Councilors; Dr. Michael A. Puzak, Dr. F. Ashton Carmines and Dr. John A. Martin, AMA Delegates; Dr. W. Leonard Weyl, Dr. Raymond S. Brown, Dr. William J. Hagood, Jr. and Dr. Arthur A. Kirk, Alternate AMA Delegates; Dr. William S. Hotchkiss, Secretary, Board of Trustees of AMA; Dr. Joseph F. Boyle, Chairman, Board of Trustees of AMA; Dr. Joseph Gardner, member Finance Committee; Dr. William D. Mayer, President, Eastern Virginia Medical Authority; Dr. William R. Hill, Past-President of The Medical Society; Sam Barton, representing MCV Student Society; Dr. Lewis Biben, President, Medical Society of District of Columbia; Dr. Ballard Cassady, President, Kentucky Medical Association; Dr. Josephine E. Newell, President, North Carolina Medical Society; and Mrs. LaRue A. King, Staff member of the North Carolina Medical Society.

Following the invocation and introduction of guests, Dr. Wootton called upon Dr. Michael Puzak, Chairman of the Finance Committee, to present a financial report for fiscal 1980-81 and a proposed budget for fiscal 1981-82.

Dr. Puzak reported that the Society had enjoyed what is perhaps its finest financial year ever. He called attention to the fact that the Society lived well within its income and had, for all practical purposes, effectively operated within acceptable budgetary limits.

It was also learned that the total worth of the Society has reached an all-time high and its reserves are in keeping with sound business practice.

Dr. Puzak expressed pleasure that the budget to be presented was balanced and contained an adequate margin for safety and expansion.

There followed an item by item break-down in order that Council might be thoroughly informed about basic operational costs and those activities which require periodic reevaluation.

One of the items discussed at length had to do

with scholarship funds contributed annually to Virginia's three medical schools. It was brought out that the Auxiliary has developed an effective screening and followup procedure to be used in connection with its own scholarship program and that the Society might well do something of a similar nature. It was the consensus that either the Committee on Long Range Planning, or some other appropriate committee should study the overall subject of scholarship grants, loans, etc., and make its thoughts known to Council at its first meeting in 1982.

The proposed budget was then approved as presented along with a recommendation for adoption by the House of Delegates.

There being no further business, the meeting was adjourned.

Robert I. Howard, Secretary

APPROVED:
**Percy Wootton, MD, President**


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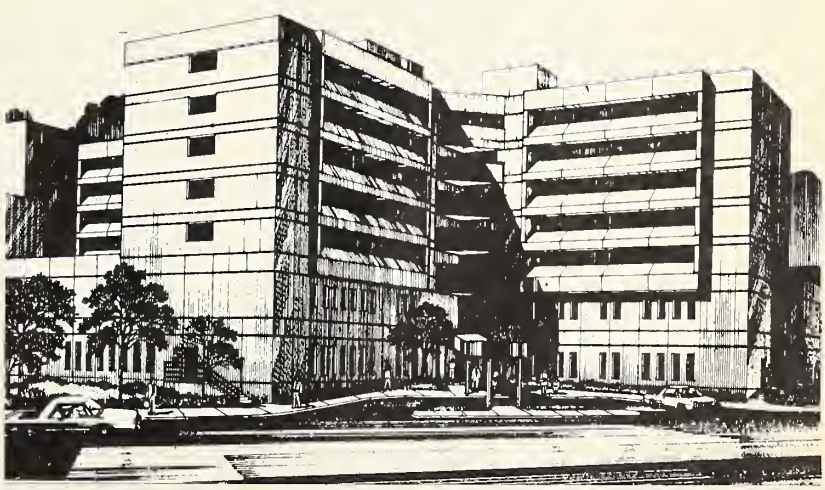


VIRGINIA MEDICAL

EDITORIAL

# An Era Compleat

ROBERT I. HOWARD has successfully led The Medical Society of Virginia through three tumultuous decades of change and is now retiring. We shall continue to build on the foundations he has laid. This is how it came about, as I see it.

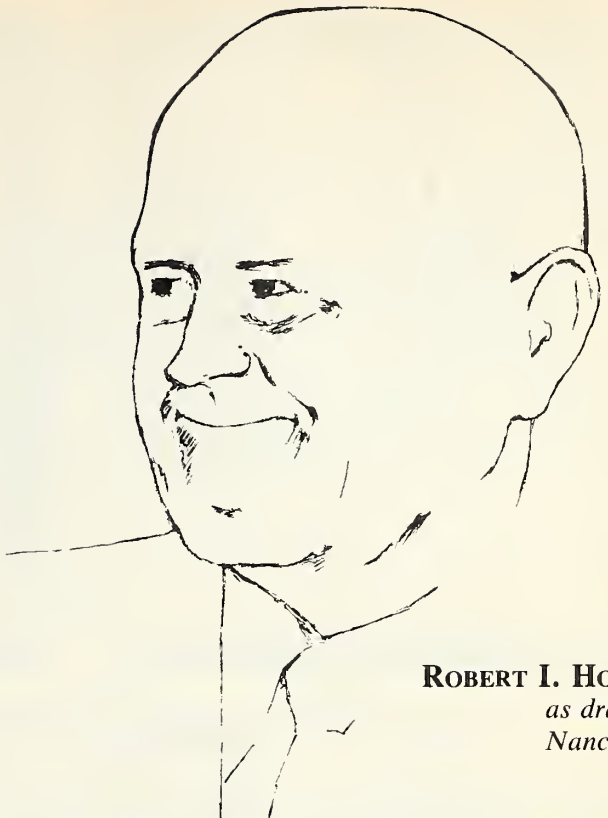
More than a few years ago a certain young fellow, Bob Howard by name, was early on exhibiting those skills and sterling qualities that would be so essential in the position of great service and responsibility that was to be his. He would have to use words effectively, the written as well as the spoken. He would have to have organizational skills. He would have to be able to lead, inspire, command. Most importantly, integrity, faithfulness, loyalty would have to be his hallmark. And so it was, even from his schoolboy days.

He was active in the literary club of his school, was assistant editor, then editor in chief of the paper, and in his early teens wrote a fine poem, "The Wings of France", speaking to high duty, devotion to country, and self-sacrificing service. He was awarded the Safety Patrol Medal for an essay titled, "A Brave Flyer With a Lion's Heart." He was elected president of the school's Civic Club and headed the drive to take care of the school property: "If we take pride in our school, we should follow its rules carefully." Then Bob went to Notre Dame, as all of us—particularly on fall weekends—are aware, and was vice president of the Notre Dame Press Club.

During World War II Bob Howard had an opportunity to fulfill his dreams of flying, for he became a fighter pilot and was awarded the Air Medal for missions flown in the Western Aleutians and Kuriles. He later was a captain in the Virginia Air National Guard and had the medically-related thrill of flying an iron lung to a polio victim. During the Korean War he was base operations squadron commander at Albany, Georgia.

He always had an intense interest in sports and was a good athlete. His 145-pound heft didn't fit him as a football player for the Fighting Irish, but later he found his niche. The Turner Aeros, an Air Force base football team, reported "Captain Bob Howard's uncanny ability", as a place-kicker. He had 35 successful kicks in 37 attempts. He has played semi-pro baseball and coached basketball at St. Johns in the Church League. He has a karate black belt and instructs in self-defense.

Bob Howard has a number of interests of which gun collecting, especially antique guns, is his special hobby. He is a member and former president of the Virginia Arms Collectors Association. His exhibit on Confederate arms, which included a seven-foot pike with bayonet attached carried by Georgians fighting Sherman's army, won top honors in a



**Robert I. Howard**
*as drawn by*
*Nancy Weyl*

meeting of the Carolina Gun Collectors Association, the first time this was accomplished by a member of the Virginia Association.

Mr. Howard is a private man, a modest man, a self-effacing man. Why have I unveiled his past? So that those of us who have not had the opportunity to know him as well as I can appreciate the full extent of the man and can understand his unique qualifications stemming from his early years.

Mr. Howard's association with The Medical Society of Virginia began in March 1950, when he accepted the invitation of Mr. Henry S. Johnson, the Society's first full-fledged professional executive, to be his assistant. Then came the Korean War, Mr. Johnson's unexpected death, and Mr. Howard's release from the Air Force so that he could succeed Mr. Johnson.

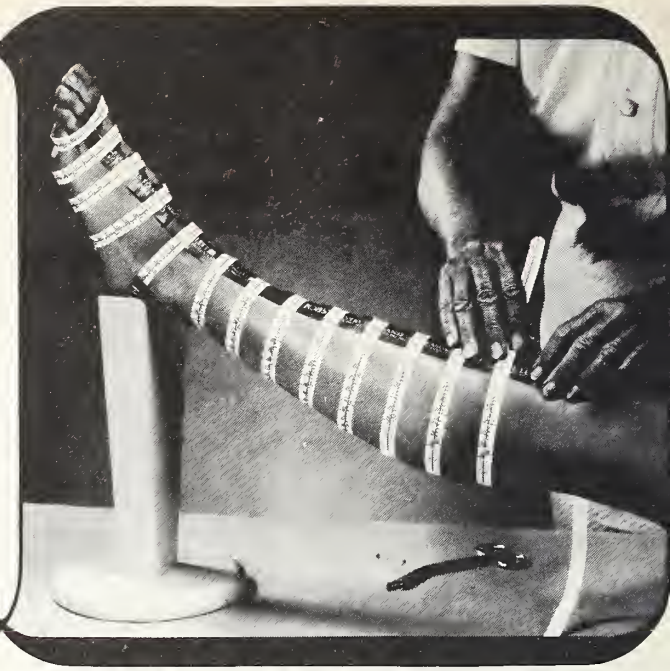
The multitude of problems that have challenged our profession and the unbelievable changes that have swept over every aspect of our society since 1950 have demanded vast adjustments. Through it all Bob Howard has been the key, working steadily and effectively, and maintaining this organization to serve best the doctors of Virginia. He is a quiet man, a patient man, a good-humored man, a cool man; a man who isn't flustered, doesn't panic; a man who faces and solves as best he can the problems that each day brings. His ready smile is heart-warming. His readiness to accommodate ensures constructive cooperation.

The recognition that he has earned and is his due has come to him on many occasions. Perhaps he is most pleased with his election as Executive Vice-President of The Medical Society of Virginia and most proud of receiving the Distinguished Service Award of the Virginia Council on Health and Medical Care. He also is a charter member and past president of the Virginia Association of Executives, an organization of over 75 trade and professional associations. He has served as secretary of the Richmond Chapter, Notre Dame Alumni Club.

Mr. Robert I. Howard, gentleman, leader, builder, we thank you for all you have given of yourself to The Medical Society of Virginia. We thank you for seeing us safely through these past three decades and starting us on the fourth. We thank you for keeping us fit and ready to deal with whatever may come. We thank you for all you have done for medicine in Virginia and for all of us who practice it. We shall miss you sorely.

May your days of less pressure and more time be enjoyed to the fullest. May your hobbies flourish and multiply. And may you return to us often, to hearten us, to give us your wise counsel, and to keep strong our ties.

W. T. Thompson, Jr., MD



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KEY TO ABBREVIATIONS

ar—annual report
b—book review
ed—editorial
h—history
le—letter to the editor
ml—medicine and the law
*—medical article
m—memoir
pv—point of view
s—speech
sa—special article
ww—who's who

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